

# small air forces observer

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July 2014

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**The Breguet XIVs of the Army of Central Lithuania**  
**North Korean People's Air Force at War: Part 11**  
**Multinational Relief Operations in Albania**  
**Flying an Armenian Air Force Yak-52**  
**Lebanon's Hawker Hunters in action**  
**Yugoslav B-24 Liberators**

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Armenian Air Force Yak-52  
(See article beginning on page 17)

# ***SMALL AIR FORCES OBSERVER***

## **The Journal of the Small Air Forces Clearinghouse**

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**COVER COMMENTS:** After being damaged by ground fire over

Lebanon, this Lebanese AF Hunter made a forced landing at an RAF base on Cyprus. Guessing from the size of the hole, the caliber would have been assault-rifle size, 7.62mm or similar. The biggest hole was just forward of the starboard canon ports. The hole was approx 4-5 inches across; you could look up into the cockpit through the hole. There were numerous smaller holes, about a dozen in number. None appeared to have hit critical components.

The pilot had declared an in-flight emergency saying he had an undercarriage problem, and requested permission to land at Royal Air Force Akrotiri, Cyprus. This was certainly not normal. The Lebanese Air Force did not operate from the British Air Force base in Cyprus and had not landed there before. The pilot probably decided to land at RAF Akrotiri because his home station, Halate, didn't have emergency equipment such as fire trucks, the runway was small, and there were no cranes to remove a crashed plane from the runaway

The tire on the nose wheel had had suffered a puncture, but the aircraft came to a stop on the runway without further incident. The nose wheel landing gear appeared to have a slight rearward bend. The weapons, ejection seat, and systems were made safe and the aircraft was towed to a remote parking area. It stayed there for a few days before it was moved to a hanger for repair by RAF aircraft engineers. The smaller holes were covered with battle-damage tape and the large hole had a metal plate riveted to the outside. The aircraft departed for Lebanon about 3-4 weeks later. (Steve Conde)



## **AUSTRALIA**

### **AUSTRALIAN PLASTIC MODELLERS ASSOCIATION**

(APMA, PO Box 51, Strathfield, NSW 2135; 4 issues airmail A\$40. International payment is best handled via Paypal at [iansharyn@bigpond.com.au](mailto:iansharyn@bigpond.com.au)). Web Site: [www.apma.org](http://www.apma.org). All articles have b&w or color photos and excellent scale drawings.

**2-13** (28 pages) "RAAF GAF Lincolns: Part 2" 19 pages inc. 8 photos, 14 1/100-scale profile drawings, 3 pages of 1/100-scale multi-view drawings, and 3 pages of 1/72-scale multi-view drawings. Non-aviation subjects are "Mannschaftstransportwagen Bedford", "Poplavko-Jeffery Armoured Car", & T-28 Medium Soviet Tank.

**3-13** (28 pages) "Bristol 170 'Freighter' in Australia and NZ" 14 pages inc. 16 photos, 3 pages of 1/72-scale multi-view drawings of three Civil "Freighters". "Avro Lincoln: Argentinian Connection" 2 pages with 4 profile drawings of Argentine AF Lincolns. "APMA Magazine Listing" 9 pages celebrating the 150<sup>th</sup> issue of APMA with photos of all 150 covers. [Ed: That makes the APMA only three issues older than SAFO.]

**4-13** (36 pages) "The Seversky 'Convoy Fighter'" 4 pages inc. 2 photos (Colombian SEV-3MWW) and 1/72-scale drawings. "Sabre A95-358 and Its Demise" 2 pages inc. 3 photos. "Canadair North Star" 6 pages inc. 7 profile drawings and modeling information. Non-aviation articles are: "Le Canon de 155 Grande Puissance Filloux", Landing Ship Tank (LST), "Carro Veloce Tankeetes", & "Hungarian Militias".

## **FRANCE**

**AIR MAGAZINE**, Artipresse, 119 rue Anatole France, 93170 Bagnolet, France. Six issues a year. 55 euros in France, 60 euros in Europe, and 95 euros for the rest of the world. E-mail: [airmagazine@rocketmail.com](mailto:airmagazine@rocketmail.com).

**#60 Janvier-Fevrier 2014** (82 pages) "Au-dessus du Sahara Espagnol" 11 pages inc. 23 photos. "Les Polonais au Maroc" 13 pages inc. 23 photos, table listing Polish airmen who reached Morocco after the fall of France, and color multi-view drawings of Potez 25 and LeO 206 flown by Polish airmen. "Le Lioré & Olivier LeO 206" 7 pages

inc. 14 photos, one color multi-view drawing, and 3 color profile drawings. "Les Mirage MSP/5DP au Pérou" 10 pages inc. 30 photos. "Les biplanes d'observation Douglas" 6 pages inc. 9 photos (one color photo of a Chinese O-2MC), and 2 pages of Paul Matt's scale drawings of the O-38/O-38E "Les monomoteurs de reconnaissance et d'observation ANF Mureaux (2<sup>eme</sup> partie)" 14 pages inc. 8 photos, table listing all Mureaux 113, 115, & 117, one color multi-view drawing of and two color profile drawings of 115s, and 2 pages each of 1/72-scale multi-view drawings of the 113/117 & 115. "Yak-24" 13 pages on Russia's heavy-lift helicopter inc. 14 photos and 4 color profile drawings.

**AVIONS:** Toute l'Aeronautique et son Histoire (Lela Presse, 29 rue Paul Bert, 62230 Outreau, France. 71 euro for 6 issues). Website: [www.avions-bateaux.com](http://www.avions-bateaux.com). E-mail: [contact@avions-bateaux.com](mailto:contact@avions-bateaux.com).

**Janvier/Fevrier 2014** (96 pages) "Mitsubishi Ki-46 'Dinah' (1<sup>er</sup> partie)" 17 pages, 26 photos, 7 color profiles, and 2 pages of scale drawings. "Robert Killy, pilote de chasse" 14 pages, 18 photos, 5 color profiles [MS-406 D.520 (3), Spitfire LF IX]. "Vought Kingfisher OS2U" (fin) 11 pages, 20 photos (A photo of a Cuban Kingfisher is misidentified as belonging to the "Republique dominicaine"), and 10 color profiles [RAAF (3), Chile, FAA (2), Mexico (2), Russia, & Uruguay]. "Pioniers: les biplane Baumier" one page & one photo. "J'étais pilote de Canberra dans la RAF" 15 pages, 22 photos, and one color profile. "Le Loire 210 (1<sup>er</sup> partie)" 28 pages, 31 photos, 3 color profiles, and 4 pages of scale drawings. It's great to see scale drawings reappearing in Avions after a long absence.

**Mars/Avril 2014** (96 pages) "Mick Mannock (1<sup>re</sup> partie)" 7 pages inc. 5 photos and 3 color profile drawings (Ni 23 & Ni 24). "Le Mitubishi K-46 Dinah (2<sup>e</sup> partie)" 20 pages inc. 35+ photos and 9 color profile drawings. "Arthur Benko et The Goon" 7 pages inc. 10+ photos and one color profile drawing. "Le Loire 210 (2<sup>e</sup> partie)" 11 pages inc. 9 photos, 2 color profile drawings and a table listing the history of each individual a/c. "Jaques

Leps" 14 pages inc. 16 photos and 2 color profile drawings (Spad VII) "Pioneers: le quadriplan Vedovelli" 2 pages inc. 6 photos. "Handley Page Halifax: The Best of the Best" 16 pages inc. 22 photos, one color profile drawing, numerous color drawings of mission markers, and tables of missions of Halifax NPoF LV807. "Le combiné SO.1310 Farfadet" 14 pages inc. 27 photos and a 1/72-scale multi-view drawing of "le premier hélicoptère à turbine au monde".

## **GERMANY**

**FLIEGER REVUE X** (Verlag Fliegerrevue, Herrn Detlef Billig, Oranienamm 48, D-13469 Berlin. 4 issues per year, \$66 surface. Payment by check drawn on German bank)

**#45** (114 pages) "Manfred von Richthofen, der Dreidecker und das erste Jagdgeschwader" 16 pages inc. 33 photos. "Fokker Dr.1 – die Technik" 8 pages inc. 12 photos, numerous sketches, and 8 photos of other German triplanes. "Der Fokker Dreidecker – Wahrheit und Legende" 4 pages inc. 14 photos. "Die Zivillufflotte der UdSSR (Teil 2) 30 pages inc. 40 photos and 3 tables (technical details of Kalinin, Tupolevs & other constructors aircraft)" "Der argentinische Stieglitz" 14 pages inc. 25 photos.

## **USA**

**IRANIAN AVIATION REVIEW** Top Kit Publishing. Quarterly. Entirely in English. \$12.00 per issue. [www.iranianaviation.com](http://www.iranianaviation.com).

**#9** (32 pages) "Islamic Revolutionary Guard Corp Air Force" 4 pages with 18 photos (Su-25K, Su-25UBK, EMB-312, MFI-17, Cessna 310, Il-76, An-74, Y-12, Falcon 20, AH-1J, AB-206B, Turbo Commander, Bell 214, & Mi-8/17). "Iran National Airlines" 6 pages inc. 21 photos (707 & 727). "Iranian F-86F" 8 pages inc. 23 photos & 2 color profiles. "Timeline of Aviation in Iran - Part 9: Aviation in Persia between the Wars" 8 pages inc. 9 photos and 3 color profiles ([Hawker Hind 4 photos & one color profiles: Polikarpov R-5 5 photos & 2 color profiles). "Iran Civil Helicopters – Part 2" 3 pages with 13 photos (Bell 204/205, Alouette II, Ka-32, AW-109, & Alouette III).

# The Breguet XIVs of the Army of Central Lithuania

Tomasz Jan Kopański

[Editor: This article is a translation of the final chapter of Tomasz Kopański's book, *16 (39a) Eskadra Wywiadowcza 1919-1920*. The translation is by Roman Klimes and it is presented here by permission of the author.]

When describing the frontiers of the future Polish Republic, Marshal Pilsudski – similar to a majority of the Poles – believed that the new boundaries must include the Wilno (Vilnius) region in Lithuania. Wilno had been occupied by Polish forces during the war with the Bolsheviks in April 1919. On 12 July 1920, at the time of Tuchachevski's Bolshevik offensive, Polish soldiers withdrew from Lithuania and White Russia, and the government of Lithuania signed an agreement with the Bolsheviks to take over all of the Wilno district and the city of Wilno. On 16 August, Lithuanian troops reached Wilno. However, the city was inhabited mainly by Poles who did not want Lithuanian rule in Wilno. After Polish troops crushed the Bolsheviks armies in the Battle of Warsaw and at the river Niemen, it was decided the time had come to finally settle the problem of Wilno.

Because of the unfriendly attitude assumed by the Entente and the League of Nations, any action could not be taken directly by Poland. For justification in the eyes of foreign observers, Marshal Pilsudski decided to give the impression that it was a spontaneous uprising of the people who were worried by future of their homeland. Soldiers of General Lucjana Zeligowski's Polish 3<sup>rd</sup> Army were to pretend to revolt against the Polish Command Staff and take over the Wilno district "on their own". All soldiers who took part in this action, regardless of the true place of birth, signed a declaration that they were born in the Wilno region.

On the morning of 8 October 1919, units of Zeligowski's 1<sup>st</sup> Lithuanian-White Russian Infantry Division, the 201<sup>st</sup> Infantry Regiment, a cavalry division, and two batteries of the 216<sup>th</sup> Artillery Regiment attacked and routed weak Lithuanian resistance. The next afternoon, they captured Wilno. During the next few days, Polish soldiers reached the former Polish-Lithuanian demarcation line. On this territory, General Zeligowski created a new state – Central Lithuania.

In this new state, the highest authority was the Supreme Commander of the Army of Central

Lithuania. As the organ of government, the Tymczasową Komisję Rządzącą (Interim Ruling Commission) was created. Questions of the defense were dealt with by the Sztab Obrony Krajowej (Staff of the Country's Defense). On 11<sup>th</sup> October, from the armies under his command, General Zeligowski created the 1<sup>st</sup> Corp of the Armies of Central Lithuania, whose task was the security of the state in case of aggression from Lithuania.

## Breguet 14 arrive in Central Lithuania

No air units had taken part in the initial Wilno action. However, events during the first weeks of existence of Central Lithuania showed that an air force was very necessary. Lithuanian planes were flying over the territory of Central Lithuania on reconnaissance missions, scattering leaflets, and bombing Polish positions.

Therefore, despite his initial reluctance, General Zeligowski agreed to the proposal of Captain (in Polish: rotmistrz) Buckiewicz, Chief of Air Force of the 2<sup>nd</sup> Army, to the transfer to Wilno of the 16 Squadron that was stationed at Lida. [Translator's note: Lida is now part of Belarus, but at that time it was in Polish territory.]

Personnel of 16 Squadron immediately started preparations to leave. Officially, their destination was Mołodeczno – not Wilno. [Translator's note: now in Belarus, but at that time it was in Polish territory.] The ground party was to go by train. However, because the railway line Lida-Mołodeczno was overloaded, the Polish government negotiated an agreement with the Lithuanian government the right use an alternate route that went through Wilno. On 27 October, 16 Squadron left Lida and on the next day they were in Wilno where they unloaded their equipment.

That same day (28 October), five Breguet 14 (10.6, 10.14, 10.36, 10.40, 10.44) of 16 Squadron flew in to Porubanek airport outside Wilno. The Breguets had just landed when over the airfield there appeared a Lithuania LVG on a reconnaissance mission to Kovno. The Lithuanian pilot had time to throw two bombs on the railway station in Wilno as a challenge for 16 Squadron.

After their arrival in Wilno, kpt. Dziama, reported to General Zeligowski, and asked on behalf of the squadron for permission to join the Army of the

Central Lithuania. Zeligowski - with a view to maintaining appearances - told him that all flying-personnel had to declare that they were born in the territories that were under the control of Central Lithuania. This formality was easily satisfied.

After officially joining the "rebellion", the commander of the unit, ppor. (Second Lieutenant) Burchard was appointed Chief of Air Armies of Central Lithuania. The airplanes had their Polish insignia replaced by that of Central Lithuania: These were squares the same size as the Polish "chessboards", but were white with a red outline on one wing, and red with a white outline on the other wing. The rudder and horizontal stabilizer were painted in white/red stripes.

On 31 October during a blizzard, kpt. Wacław Iwaszkiewicz, a pilot with 12 Squadron, flew from Lida to Wilno to take a "vacation" while helping the defenders of Wilno. Thus, 16 Squadron gained another good pilot and a sixth airplane – Albatros C XV 23.3. A short time after his arrival in Wilno, kpt. Iwaszkiewicz was appointed by the Department of Country's Defense as head of the air force.

### **The Breguets enter combat**

On the afternoon of 31 October (ca. 1445 hours. to 1630 hours), kpt. Dziama and ppor. (2<sup>nd</sup> Lt.) Blaicher on Breguet 10.44, flew the first combat mission by 16 Squadron in Central Lithuania. They bombed Lithuanian troops in Wilkomierz. Lithuania protested to the League of Nations, declaring that the Polish had bombed civilians, killing 11 and injuring 13. This charge was never substantiated, but it was widely reported in diplomatic circles that were unfriendly to Poland (especially in England).

On 5 November, a flight was made over the front by five Polish planes. The crews were: kpt. Iwaszkiewicz and ppor. Suchos (Albatros C XV 23.3), kpt. Dziama and ppor. Moszczeński (Breguet 10.44), ppor. Halewski and ppor. Makowiecki (Breguet 10.40), sierż. (Sergeant) Poteć and pchor. (under-warrant officer) Wajcht (Breguet 10.14), and plut. (Corporal) Bartel with ppor. Blaicher (Breguet 10.36).

The Breguet piloted by kpt. Dziama flew over Panemune, Kowna's airport. The observer, ppor. Moszczeński, dropped the bombs after which the pilot went down to 560 meters and strafed Lithuanian positions. Not one shot was directed at his airplane. The only plane that was fired on was by machineguns located in the fortress of Kovno. After a two-hour

flight, the airplanes returned to Wilno without any damage.

Next day about 1200 hours, four airplanes started for Kovno: kpt. Dziama with ppor. Blaicher (Breguet 10.44), por. Halwski with ppor. Makowiecki (Breguet 10.40), plut. Bartel with ppor. Moszczeński (Breguet 10.36), and sierż. Poteć with pchor. Wajcht (Breguet 10.44). After about 10 minutes of flight, plut. Bartel's motor began acting up and he had to return to Wilno. Short thereafter, kpt. Dziama, who was leading the group, also had to return to Wilno for the same reason. A third pilot, sierż. Poteć, saw the two machines leave and made the same decision. As a result, the flight to Kovno was made only by ppor. Halewski. His memories:

"I decided to carry out my orders which were to reconnoiter the route Wilno-Kovno and bomb the railway line. Starting at 1215 hours, we spent 55 minutes observing the railway Jateiuny – Rykonty – Jewie and the railway station at Koszedary. At 1310 hours, we dropped two bombs each on the railway station and on the Zeppelin hanger at Kovno. After circling over the city four times, we had to leave, so we dropped our fifth bomb on the railway station,

"Then, I saw three airplanes coming towards us. Because of the distance, I could not immediately identify the type, but I assumed they were Breguets of our squadron that were flying back to base. I was suddenly surprised when we were shot at from below and I saw that the planes were enemy fighters. My observer told me that there were two Fokker DVII and an LVG CVI. I knew these airplanes had not taken off from Poniemuniu because I had this airport under surveillance all the time and I didn't see any movement there. They probably came from another airport and were on patrol after the attack the day before by kpt. Dziama.

"The Fokkers were flying about 800 meters lower than I was when they began firing. I immediately dived down and fired a few short bursts from my front machinegun. My opponent got lower and lower and I was thinking that I had shot him down, but I was not sure. I didn't see him crash, but suddenly the LVG CVI came in from my right side shooting at my machine. I saw the trail of tracer bullets around my airplane and some shots must have been well aimed because I clearly heard hits on my wings. My observer directed his machineguns on the opponent, and he got off several long bursts. I also attacked the LVG two times with my front machinegun.

“The situation became more serious when a third fighter, either a Nieuport or Fokker D VII) was approximately 50 meters from my tail and firing a series of shots that I saw very well. I knew that this pilot is very experienced, and we were later informed that he was German. I chose to fly straight while accelerated the engine, but this did not allow me to escape. (I had worst flying machine in the squadron. Two times in the past I had to make forced landings – happily without major damage. Another time, the damage was very seriously. After it was repaired, it was again in my service.) I saw my opponent all the time in my mirror. My observer could not shoot since he would hit his own stabilizer. We were helpless. This situation continued while flying from Kowno to Koszedary. On the way I saw a plane flying towards Kowno, and later I found out this was the plane of kpt. Iwaszkiewicz and sierż. Wolniczek. But they did not notice our unpleasant situation. This dire situation without a solution lasted about 20 minutes, and I was prepared, that the next series of burst from the enemy’s machinegun would be the “tilt of the victory cup” for him. Then, I saw a short burst from of fire from my opponent and noticed that one of his machineguns had ceased firing. I made a quick turn, and in short time I was behind him. I sent him some machinegun bursts and broke off combat.

“I returned to Wilno airport at 1400 hours. The squadron’s chief mechanic, sierż. Szakowski, and I found numerous bullet holes in the lower right wing. After a few days, the wing was repaired.”

Beginning on 6 November, for over half a month, warm weather grounded many flights. It was too warm for this time of year so fog formed over the marshes and forests and it was impossible for the pilots to determine their location and carry out any meaningful observations. As an example, on 13 November, two crews: plut. Bartel with pchor. Suchos and kpt. Iwaszkiewicz, with ppor. Romanowski had to return to the airfield at Porubanka without sighting anything.

### **Central Lithuania on the attack**

On 17 November, the armies of Central Lithuania began attacking Lithuanian positions along the line Szyrwinty-Giedroycie-Dubinki. In this sector, that was approx 30 kilometers long, Polish infantry reached the line of demarcation that was to mark the Polish border after July 1920. The evening of the same day, the Wilno Cavalry Brigade, leaded by col.

Mścisław Butkiewicz, broke through the enemy lines and went deep into Lithuanian territory.

The day before these actions started, the command of the 1<sup>st</sup> Corps of the Central Lithuanian Army gave orders to 16 Squadron to reconnoiter the planned battlefields. From some unknown reason (probably fog), 16 Squadron did not go into action until 19 November. After a short reconnaissance flight by por. Halewski, four planes bombed Lithuanians positions and the railway station at Koszedary. Kpt. Dziama with ppor. Moszczeński (Breguet 10.44) bombed the bridges over the river Neris (Translator’s note: In Polish the river Wilia).

During 19 and 20 November, the attacks of the armies of Central Lithuania were stopped by the Lithuanian army near the commune of Szyrwinty (Lithuanian: Širvintos), and the Polish units were forced to withdraw. In this situation, 16 Squadron received orders to bomb a concentration of the 52<sup>nd</sup> Lithuanian Infantry Regiment stationed at Wilkomierz who were preparing to go to area of fighting. This order was carried out by three airplanes. The crews were: kpt. Dziama with ppor. Blaicher (Breguet 10.44), plut. Bartel with ppor. Romanowski (Breguet 10.40), and sierż. Poteć with ppor. Makowiecki (Breguet 10.14). In addition, reconnaissance of the terrain of fighting was made by kpt. Iwaszkiewicz with pchor. Suchos in the Albatros.

During the night from 20/21 November, the cavalry of the Central Lithuania reached Kiejdan, approximately 45 kilometers north from the capitol of Lithuania (Kowno). This news spread panic in the Lithuanian government who started partial evacuation. However, when the leader of the Central Lithuanian cavalry, col. Butkiewicz, learned that the attack of the Polish infantry had been stopped and that Lithuanians units were close to Kiejdany, he abandoned this march on Kowno and the Wilno brigade retreated.

General Zeligowski realized that his units could keep their new positions for only a short time. Therefore, he decided, under pressure from the Control Commission of the League of Nations, to stop the attack. On 21 November before the noon, an informal ceasefire between Polish and Lithuanian units came into effect. Unfortunately, the Wilno Brigade Cavalry, which at this time was deep into the territory of the opponent did not received news of the ceasefire. On 21 November, two airplanes of 16 Squadron: kpt. Iwaszkiewicz with ppor. Blaicher and

plut. Bartel with pchor. Wajcht unsuccessfully attempted to find the brigade and deliver the orders of General Zeligowski. The next day, kpt. Iwaszkiewicz with sierż. Wolniczek and plut. Bartel with ppor. Romanowski made two further flights, but the cavalry could not be found.

Only on 23 November, the day before the cavalry brigade reached the Polish lines, did plut. Bartel with pchor. Suchos stumble across Butkiewicz's cavalry. Only then did it become clear why the pilots were not able to discover the cavalry; these units were moving faster than the command of Central Lithuanian Army thought possible. At the same time, the cavalry was hiding from aerial observation (very easy in the forested area), for on 20 November a Lithuanian airplane that had been mistaken as friendly bombed the unit, killing one cavalry soldier. The enemy plane was shot down.

On 25 November, plut. Bartel with pchor. Suchos (Breguet 10.36) made the last combat flight for 16 Squadron. Four days later, a ceasefire was signed between Lithuania and Central Lithuania. This agreement entered into force on 30 November at 1200 hours.

After this date, the pilots of 16 Squadron made observation flights over the territory of Lithuania and also dropped leaflets until January 1921. Because these took place after the ceasefire, they have not been treated as combat flights and it is not recorded in the overview of flights by the squadron of the Army of Central Lithuania.

### **After the ceasefire**

In summarizing the activities of 16 Squadron in Central Lithuania, it should be stressed that they put in a lot of effort. The majority of flights were made in terrible weather. The planes were often fired at from the ground by both the enemy and their own troops who did not recognize the identification marking of Central Lithuania. In addition, it is necessary to say that this unit was equipped with very worn out equipment. The mechanics and their boss, sierż. Szakowski, worked long hours to keep the old Breguets ready to fly.

During their time at Wilno, 16 Squadron used Breguets with following numbers: 10.14, 10.36, 10.40 and 10.44. A fifth Breguet – 10.6 – was probably unfit for action. One source suggests that this airplane was damaged on 28 October during the flight of the squadron from Lida to Wilno. Also available to the

squadron was Albatros C XV 23.3 of kpt. Iwaszkiewicz.

First new planes came to Porubanki airfield at the end of the year. At the end of December 1920 the unit received Breguet 10.19, in February 1921 Breguet 10.46, and in March 10.39.

### **16 Squadron between the Wars**

On 3 March 1921 squadron leader ppor. Burchard received the following order from the Chief of Air Force NDWP (Naczelne Dowództwo Wojska Polskiego = The High Command of the Polish Army): "Air squadron 16 will go from Wilno to Krakow for a reorganization of airplanes and personnel." Shortly before moving to Krakow, on 15 March 1921, command of the unit was taken over by kpt. Andrzej Plachta, who had been serving with the 12<sup>th</sup> Reconnaissance Squadron.

On 19 March 1921, 16 Squadron moved to its new station. At Krakow there were waiting four new Breguets (10.7, 10.66, 10.67 and 10.71) that had been delivered by the pilots of 10 Squadron.

On 10 September 1921, the unit was transferred to Warsaw where it became a part of the 1<sup>st</sup> Air Regiment of the 1<sup>st</sup> Reconnaissance Division. Here, commander kpt. Plachta, handed the squadron over to por. Tadeusz Prauss. At the same time, due to lack of sufficient number of Breguets, Ansaldo A-300 were added to the squadron.

In July 1923, the unit was under the command of kpt. Stefan Sznuk who, in October 1924, was replaced by kpt. Bronisław Wojtarowicz. He was last commander of the 16 Squadron, because on 27 May 1925 it was renamed the 11<sup>th</sup> Air Squadron and later in 1929 11<sup>th</sup> eskadrę liniową. [Editor: "eskadrę liniową" is usually translated as "Line Squadron". It describes an aviation unit assigned to a ground commander for direct support of ground troops. While this was an effective organization during the Polish-Russian War of 1920, when little or no aerial opposition was encountered, it proved disastrous during the September Campaign of 1939.]

A short time after the change in number, at the beginning of 1926, the unit began to obtain new material – Breguet XIX. The old "fourteens" were given to the 1<sup>st</sup> School Squadron. These airplanes served with the school for many years. One of the last machines of this type crashed (from engine failure) with kpr. (kapral = leading air craftsman), pchor. (podcharzwy = underwarrant officer), and rez.



pil.(reserve pilot) Bogdan Jankiewicz on 12 May 1933!!

The Breguets XIX were standard equipment of 11 Squadron for ten years until September 1936 when they were exchanged for PZL P23 Karaś. On these machines, in accordance with an order of the Commander 1<sup>st</sup> Polish Air Force dated 5 May 1937, were painted the emblem of the 16 Squadron from 1920 – the “Krakowianka” on a blue triangle. (Krakowianka is a woman wearing the traditional costume of the Krakow region.)

In March 1939, there was a reorganization of the air force and 11 Line Squadron was dissolved, but the traditions of the 16 Squadron were not lost. After the September Campaign, many of the personnel of the Polish Air Force came to the West and the “Krakowianka” again appeared on Polish airplanes (e.g. Wellingtons of the 300. Squadron)

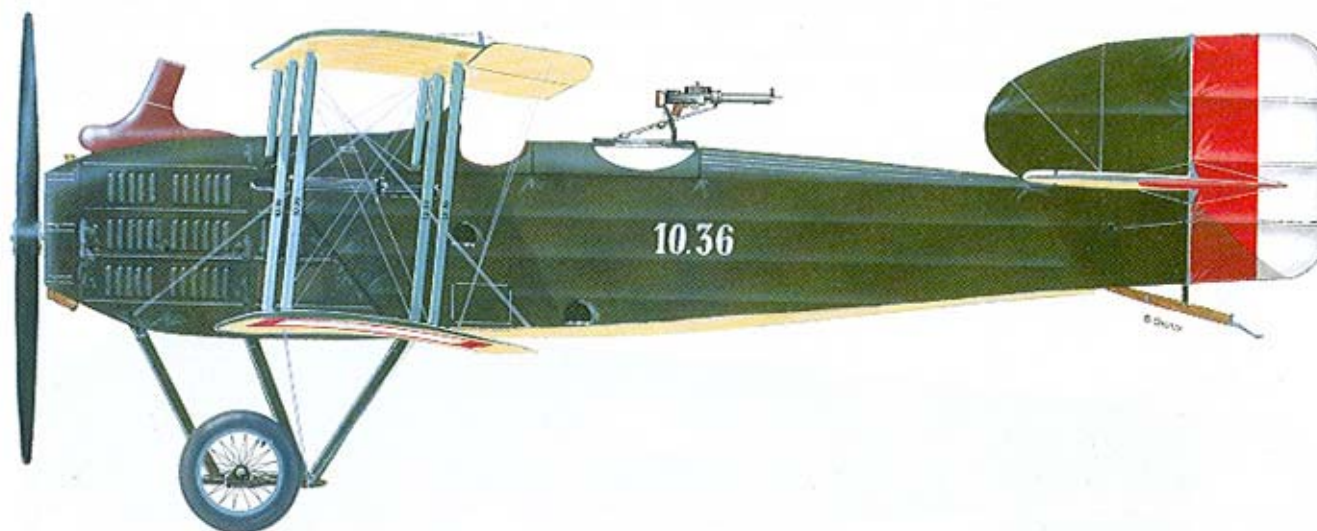
Tomasz Jan Kopański, Poland.

### Table of Air Force ranks

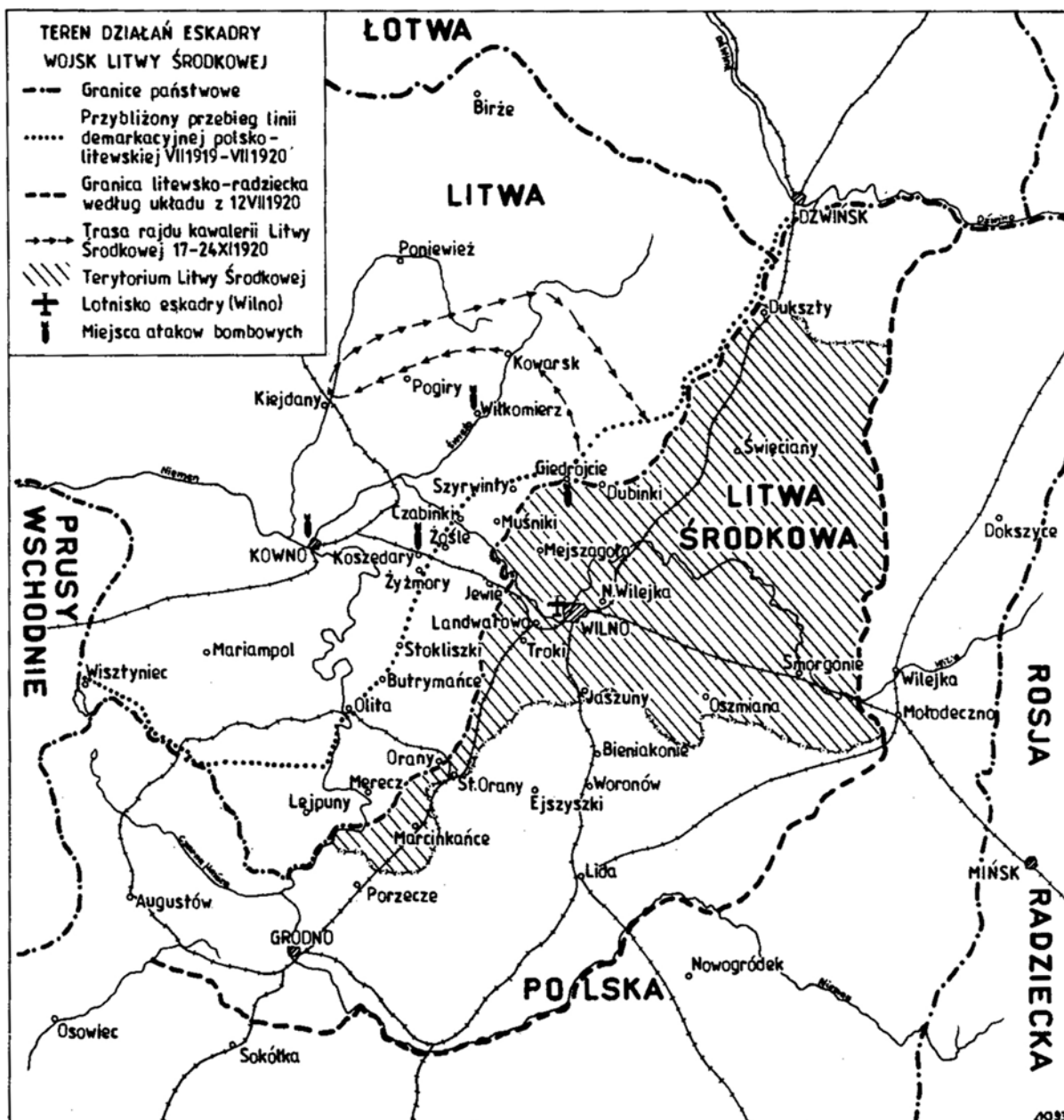
<u>Poland</u>	<u>Great Britain</u>	<u>USA</u>
General brygady – Gen. Bryg.	Air Commadore	Brigadier General
Pułkownik – Plk.	Group Captain	Colonel
Podpułkownik – Pplk.	Wing Commander	Lieutenant Colonel
Major – Mjr.	Squadron Leader	Major
Kapitan – Kpt.	Flight Lieutenant	Captain
Porucznik – Por.	Flying Officer	First Lieutenant
Podporucznik – Ppor.	Pilot Officer	Second Lieutenant
Chorąży – Chor.	Warrant Officer	Warrant Officer
Sierżant – Sierz.	Sergeant	Staff Sergeant
Plutonowy – Plut.		
Kpral – Kpr.	Corporal	Sergeant
Szeregowiec	Aircraftman	Airmen
Podchorąży – Phor.	Cadet Officer	Cadet Officer



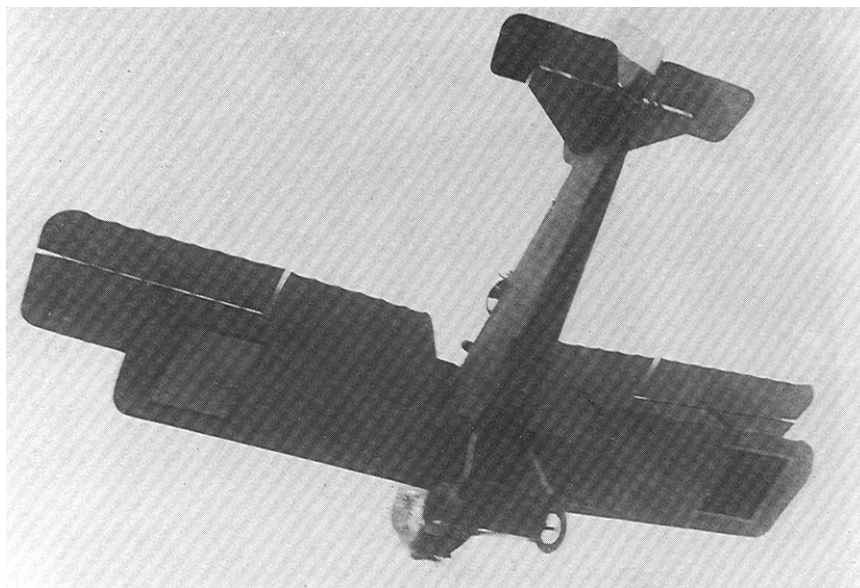
“Krakowianka”



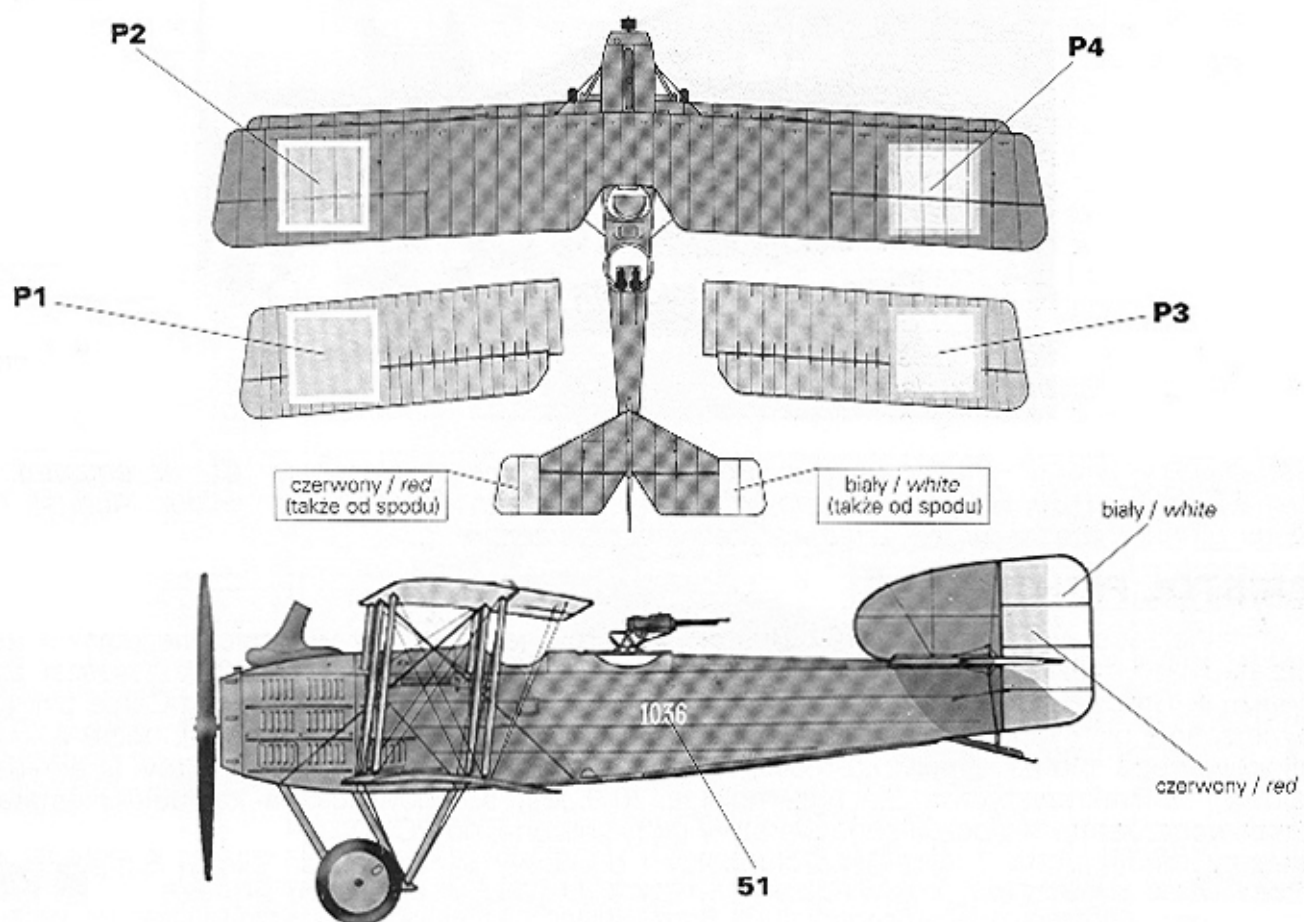
Breguet XIV A2 No. 10.36, Squadron of the Army of Middle Lithuania, Wilno airfield, December 1920. Aircraft is dark green overall with clear doped (light blue?) undersurfaces. Insignia of Middle Lithuania are clearly seen (there were white and red squares with outlines on the wings, red and white stripes on the rudder and similar stripes on the elevator tips).



Breguet 10.36 piloted by plut. Ryszard Bartel – shortly before touch-down at Wilno airfield. White and red stripes on the rudder are clearly visible. On the left – a front part of the fuselage of Albatros C XV no. 23.3. (Kopański)



One of the Breguets belonging to Squadron of the Army of Middle Lithuania. Note white and red stripes on rudder and elevators and emblems on wings. The machine is flown by kpr. pil. Teofil Dziama.(Kopański)



Source: *80<sup>th</sup> Anniversary of the Polish Air Force 1918-1998*, by Wojciech Butrycz. Limited edition including decals in 1:72. “P1” is red with white border and “P2” is white with red border.

# The Hawker Hunters of the Lebanese Air Force

João Paulo Morales

Lebanon was the second nation in the Middle East, after Iraqi, to select the Hawker Hunter to serve as the backbone of its aerial fighter force. To this incredible warplane, the Lebanese Air Force delegated the missions of interception, air defense, combat air patrol, reconnaissance, and attack. The first three planes arrived on 3 November 1958, and the last were not withdrawn until the 1990's.

## Lebanon creates an air force

Lebanon saw the importance of an Air Force during the Israeli War of Independence that occurred from 15 May 1948 to 10 March 1949. During the conflict, Egypt had the most powerful air force on the Arab side, followed by Syria and Iraq. Lebanon and Jordan didn't have any air force to support its troops during offensive missions against the Israeli Army.

The commander of the Armed Forces in Lebanon, Fouad Shehab, initiated the first steps to fill the gap by appointing Lt. Colonel Emile Boustany to organize an air force. On 1 June 1949, the Lebanon Air Force (LAF) was created under the command of Lt. Colonel Boustany at Rayak Air Force Base situated in the Bekaa Valley. Rayak was at that time one of the most advanced and well equipped airbases in the Middle East having entertainment facilities, flowering gardens, central heating, and fantastic buildings.

Both Britain and Italy supported Lebanon by donating two Percival Proctor (the very first two LAF airplanes!), four Percival Prentice, one Macchi MB.308 and four Savoia Marchetti SM.79 Sparviero. The next step was made in 1950 when the LAF received one De Havilland Dove and six De Havilland Canada Chipmunk T.20 and T.30. More advanced planes were obtained when the LAF bought six ex-RAF T-6, the first of which arrived in 1952. In that same year, the LAF decided to establish its first combat unit with fighters with the choice going to the De Havilland Vampire. A fleet of four T.55, four FB. Mk.5, two FB. Mk.52 and three FB. Mk.9 were ordered. The first plane, a T.55, arrived on 24 March 1953.

## The LAF selects the Hawker Hunter

Although, the Vampires gave the LAF a capable air defense, Lebanon was still looking for a more powerful, newer, and versatile aircraft. After a

detailed study, the LAF decided that the Hawker Hunter was the best choice to meet the country's needs.

In 1958, using money from the US offshore arms procurement program, Lebanon ordered five ex-RAF Hunters F.6. They were ex- XE598 (L-170), XF461 (L-271), XF 377 (L-173), XG167 (L-174), and XF495 (L-175), and all arrived between 31 October and 3 November of that year. Another Hunter, ex-XE534 (L-172), was delivered on 22 May 1962. All the Hunters received the Mk.70 designation from Hawker Siddeley Aviation.

As soon as the pilots started operations with the Hunters, it became clear that the plane was the best fighter for the country: easy and cheap to maintain. In 1964, more Hunters were delivered to the LAF: seven F.6 from Belgian; ex-IF-86 (L-176), IF-96 (L-177), IF-129 (L-178), and IF-101 (L-179). Two were delivered on 14 September and last two on 15 November 1965. The other three were two-seat trainers, also from Belgium: ex-IF-60 (L-280 – L-286 after 1975), IF-112 (L-281 – L-287), and IF-34 (L-282 – L-288). The first one was delivered on 15 November and the last two on 23 December.

For the LAF Hunters, the standard weapon was four powerful four Aden 30mm cannons with 150 rounds each; supplemented by Matra rocket launchers with 18 SNB 68mm rockets each, 24 Hispano SURA R80 80mm unguided rockets, or Mk. 82 and Mk. 83 free-fall bombs.

## The LAF Hunters into combat

The LAF Hunters were first called into action in May of 1973, when they were called upon to provide air support for the Lebanese Army against the Palestine Liberation Organization (PLO). Many PLO Palestinian refugee camps near Beirut were attacked by LAF Hunters, Mirage IIIEs, and Fouga Magisters during air raids the lasted almost two weeks.

Seeing the performance of the Hunter during these combats, during 1974 LAF bought six F.6 Hunters converted into FGA.9 from RAF stocks. With the designation F.70A, these were ex-WW598 (L-280), XF457 (L-281), WW594 (L-282), XF430 (L-283), XJ644 (L-284), and XJ640 (L-285). The first three arrived on 8 December 1975 and, because the Civil War that started that year, the last three were

delivered only on 17 May (L-283 and L-285) and 1 June 1977 (the anniversary of the founding of the LAF).

On 9 January 1976, the Hunters were called into action again when the Palestinians blockaded Damour, a town populated by Christian. Bombarded by artillery shells, the town was soon without food, water, and electricity, forcing the Defense Minister Kamil Chamoun, a Christian, to ask for air attacks on the Palestinians. On 16 January, Mirages IIIE and Hunters started a series of attacks against the Palestinian's positions. Primer Minister Rachid Karami, a Sunny Muslim, stopped the air raids and the siege on 20 January 20, ending this tragic episode.

### **The LAF and the Six Day War**

Until today, there are some doubts about the LAF's involvement in the Six Day War. Lebanon did not directly take part in the conflict, although a unconfirmed account that LAF Hunters shot down a single Israel Air Force (IAF) fighter. According to this account, a formation of four LAF Hunters engaged and destroyed a IAF Dassault Mystere from a formation of four ships. This supposedly happened during the first day of the conflict on 5 June 1967.

On that same day, maybe in revenge, four IAF Dassault Mirage IIIC, from 117 Squadron, engaged and destroyed one LAF Hunter, which was flying a reconnaissance and Combat Air Patrol mission along the Lebanese-Israeli border.

### **Civil War in Lebanon**

The world watched in amazement the progress of the Civil War in Lebanon, a conflict that had begun in April 1975 and left in ruins the country that was once considered the "Switzerland of the East". The trigger for this civil war, that would last for 15 long years, was the murder of four Christian Maronites during the inauguration of a church in Ain El Rummaneh in Beirut. In retaliation, hours later, 30 Palestinians were killed by Maronites in a bus that was heading for the refugee camp Tel al-Zaatar. From that time, retaliatory actions were committed by both sides.

The civil war was marked by several changes in the political position of each force. In the beginning, Syria supported the Maronite Christians, sending troops into Lebanon, at the request of Lebanon President Suleiman Frangieh Maronite, to minimize the Palestinian forces and restore order in the country. However in 1981, for political expediency, the Druze and Palestinians came to be welcomed by the Syrians,

while the Christians had become their own worst enemies.

In the early years of the war, Lebanon was able to halt the advancement of the Palestinians thanks to the support Syria. However, Syria had militarily occupied the north part of country including the Bekaa Valley, an area comprising almost half of Lebanon. The government and the weakened Lebanese Army attempted to reverse the situation with the help of USA, France, Britain, and Israel. For example, even with the civil war in full swing, the Air Force was buying new equipment until the early 80s.

In 1983, the LAF had three major air bases: Rayak, in the Bekaa Valley, was the base for Hawker Hunters, Scottish Aviation Bulldogs, and Fouga Magisters. Beirut was the base for Sud Aviation SA.318 Alouette IIs, SA.319 Alouette IIIs, Bell 212s, Aerospatiale SA.314 Gazelles, and SA.330 Pumas. Finally, Kleyate housed a fleet of Dassault Mirage IIIE/Ds, all put in storage.

Because the Lebanese Armed Forces commander was a Maronite Christian, the change of the political position of Syria put the bases at Kleyate and Rayak in the sights of enemy fire. At the beginning of 1983, the LAF transferred its planes to Beirut which was at that time still safe for air operations.

However, Syrian forces were eventually able to attack the Beirut airport where they blew up a Shrike Commander 690 Turbo L-701 and the Hunter T.66 (two seater) L-287, forcing the military to protect the aircraft with sand bags until they could find a solution to the problem. After a few days, a new air base was found - Halate.

### **The Hunters find a new airbase**

Halate was not an airfield. It was only the road that connected Beirut to Tripoli passing through the cities of Byblos and Halate. The road was closed by the Lebanese forces who destroyed some bridges along the 1600m route. They covered the road with steel plates and a thick layer of asphalt. A two-floor building was erected to support operations. All road traffic was moved to a perimeter track.

In mid-August 1983, the fixed-wing aircraft, comprising approximately 10 Hunters (F.6 version, FGA.9 and T.66), eight Fouga Magisters, and six Bulldogs, were transferred to Halate. Some of the helicopters were transferred to makeshift bases at Adma and Jounieh.

However, operating at that location proved to be a challenge for pilots. First, because of the surrounding



mountain ranges, aircraft could only land in a south-north direction. The road was narrow, there were no taxiways, and aircraft had to be left in the open. Yet it did not take long for pilots to get used to the new routine and combat resumed the following month.

After spending more than seven years without going into combat, the Hunters were deployed to attack Syrian and Druze positions in the Chouf Mountains, south of Beirut. On 16 September, two of Hunters took off to bomb the battle front in the Souk el-Gharb area to stop the Syrian progress toward the presidential palace in Baabda. The attack was a success. However, the next day, two Hunters faced strong Syrian anti-aircraft artillery at Souk el-Gharb, mainly composed of batteries of 23mm guns, which were responsible for the destruction of Hunter FGA.9 L-281. The pilot, Fouad Shehade, ejected over the sea and was rescued by a US Navy Sikorsky SH-3D.

In another mission on the same day, Hunter FGA.9 L-282 was damaged by ground fire forcing the pilot to fly directly to Akrotiri, Cyprus, where he made a successful forced landing. "The option to fly to Cyprus was because the runway at Halate was too narrow and may not have been able to withstand the impact of a crash landing. Once the Hunter has been repaired, the pilot and aircraft returned to Halate and continued operations until the end of the conflict," said a former LAF Colonel who was a pilot at that time and who, even at this time, cannot be identified. The L-282 is still in operation at Lebanon nowadays.

In the eight days that followed, several missions were made with nine Hunter, five FGA.9 three F.6 and T.66.

The former LAF Colonel continues: "The biggest problem with the operations of the Hunter is that they were used improperly. We were assigned to give close support to our troops, although this left the aircraft vulnerable to anti-aircraft artillery because it was necessary to make several passes over the enemy. The correct way to attack ground targets is to arrive at first light of day keeping the element of surprise. Come in at 780km/hr and 60m high, drop the bombs and gain altitude. No one will see the aircraft arrive or even go away. Moreover, there must be collaboration between the intelligence and aviation, that is, take off with pre-determined targets. This was not done by us", he said.

Continuing he said: "The Hunter is an excellent platform when using rockets and cannons, as the level of precision is extremely high. However, with bombs,

this ratio falls much lower because, even using the onboard sighting system, it is necessary to make calculations to compensate for the speed and drag of the aircraft. In most of these cases the target was not hit."

On September 19, a LAF Bulldog was shot down during a reconnaissance mission over the Chouf, killing two experienced pilots.

In the last days of that month, a cease-fire was achieved by international mediators including the UN. However, in February 1984, fighting in Lebanon was renewed and the Hunters again attacked targets in the region of Shahar south of Beirut. "It was only three days of fighting."

In some cases, Lebanese pilots operated in conjunction with French Naval Aviation. On one occasion, a pilot of an Aeronavale Dassault Super Étendard decided to personally meet the Lebanese pilots at Halate. He proceeded to land on the runway, but was only successful on his third attempt. The French pilot descended from his aircraft and congratulated the pilots playfully calling them crazy because they had to operate in such awful conditions.

### **After the civil war**

After the end of the civil war on 13 October 1990, Halate remained operational for a few weeks before all operational Hunters flew to Kleyate. There, members of the Lebanese militia tried to kidnap some of the Hunters to attack their own Lebanese Army. LAF technicians sabotaged the planes and the action was frustrated. Aircraft that were not in flying condition remained at Halate until the end of 1991, when they were removed to Rayak. The road at Halate was repaired to allow the transit of cars.

The Hunters were retained in service until 1994, when an accident with the T.66 L-286 forced the country to withdraw the remaining planes. They were held in storage until 2007 when a new life was given to the Hunter when Lebanon decided to put the entire fleet back into service to support its troops during the Nahr el-Bared war (See article of Bell UH-1H at SAFO #144) in 2007. Four planes were put in service: L-280, L-282, L-284, and L-286, but they did not take part at the action. The Hunters were maintained in flying condition until 2012, and now the fleet is in an active-store status.

João Paulo Moralez (SAFCH #1712) and Vatche Militian, Brazil.



1. An incredible view of Hunter L-280 over Beyruth in 2008.



2. Two Hunter FGA.9 and one T.Mk.6 on the flight line at Rayak during 2008.



3. Hunter L-280 (right) and a FGA.9 flying over Jbeil, close to Halate, after a real combat sortie. Note the dark soot indicating that the planes cannon had been fired.



4. This Hunter F.6 suffered a hydraulic failure and over shoot the runway and the left main landing gear collapsed. This plane was back in flying status within weeks.



5. Hunter L-284 at Rayak during engine trials while the plane was being put into flying status in 2007. The intention was to use the plane during the Nahr el-Bared war. Note that the plane doesn't have its canopy installed.



6. A Hunter T.Mk.6 (the only two-seat survivor) coming in to land at Rayak in 2008.





7. A Hawker Hunter Mk.70 on display at Halate during the 1980's. The ordinance includes Mk.82 free-fall bombs, 30mm cannons, and 68mm Sneb rocket.



8. A LAF Hunter landing at Halate during the 1980's. Note the residential buildings close to the runway.



9. Flyby by three Lebanese Air Force Hawker Hunter over Rayak Air Force Base after four planes were put into flying condition following 14 years in storage.



10. An aerial view of Halate's parking area with are a Fouga Magister and Hunters protected by sandbag revetments.

All photos from the Vatche Mitilian Archives

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**Brothers in Arms 4: The MiG-21PFM in Warsaw Pact Service and Beyond.** 1/72-scale decals. Linden Hill Decals LHD72033.

contact@lindenhillimports.com. \$17.99.

The two decal sheets (60mm by 190mm & 80mm by 65mm) in this set provide the national insignia and serial numbers for 15 Mig-21PFM [USSR (2), Afghanistan (2), Bulgaria (2), Czechoslovakia (2), Germany GDR (2), Romania (3), & Mongolia (2).

The 6-page instruction sheet provides background information and multi-view color drawings for all aircraft.

Of particular interest is the inclusion of the Afghan national insignia used by two different régimes: The short-lived 'Khalq' faction (1978) and the post-

Russian invasion 1979 government). Romania is also represented by two different national insignia.

This is another well-researched and beautifully-presented decal set from Linden Hill. While no modeler would want to build all 15 MiG-21PFM, the Mongolian and the two Afghan aircraft are very tempting.

Decal for the same 15 Migs are available in 1/48 scale as LHD 48033 for \$20.99.

These two decals sets and the earlier three sets of Brothers in Arms series are obtainable directly from Linden Hill. The review decals for sets #4 (both 1/72 & 1/48) are also available from the SAFCH Sales service safo@redshift.com.

# Armenian Air Force Institute's Yaks

Kyriakos "Kirk" Paloulian

[Editor: Our correspondent Kyriakos "Kirk" Paloulian spent a few days with the men of the Armenian Air Force (Hayastani Hanrabetutean Razmaotayin Ouzher) to see what is like to be part of this small but proud Air Force.]

Colonel Daniel Balayan is the acting commander of the Armenian Aviation Academy (*Institute Armenag Hamperiants*). A senior Flight Instructor trained by the Russians he has more than 4500 hours flown on Yak-52, Yak-55, L-29, An-2, Mi-2, Mi-8, and has instructed close to 100 Armenian flight cadets. He sits in his office where Academy briefings are held. The flag closest to the Armenian flag is the Armenian Air Force flag which, derived from the Soviet Air Force flag, bears a pair of wings in the center. The Vice CO is Major Zaven Hakobjanian, an engineer who graduated from the Moscow Polytechnium and joined the Armenian Air Force in 1995. He has attended the NATO Partnership for Peace program in Hungary designed to modernize ex-Warsaw pact air forces to NATO standards.

According to Col. Balayan, a student pilot must exhibit good character and exhibit basic skills by flying a Yak-52 solo in just 14-15 hours. All student pilots failing to make the grade have the opportunity to become navigators. They will stay for the better part of their 20-year career on the ground at radar stations, or if they are lucky serve as navigators on the An-32 or An-26 of the air force. Successful student pilots have two paths to select: airplanes or helicopters. Helicopter pilots, after the flying the Mi-2, can be selected to join the Mi-24 squadron at Yerebuni aerodrome where they will serve for two to three years in the front seat as Weapons System Operator before moving to the pilot's seat. Airplane pilots will either return to the Yaks as Instructor Pilots after 50 hours on the L-39, or some lucky ones will move on to the venerable Su-25 Frogfoot. A student pilot will fly some 20 hours in the basic stage and some 30 hours for instrument flying and aerobatics on Yaks before moving north to Gumri airbase to learn flying fast jets with the L-39 Advanced Flying Unit. After this phase he can proceed to the Su-25K Operational Conversion Unit.

The requirements to enter the Armenian Air Force Institute are: male, aged 17-21 years of age, and a high school diploma with emphasis on chemistry, physics, and math. Additional requirements are very good health, 20/20 vision, and Armenian citizenship or proof of Armenian parentage if an applicant comes from abroad. In 1992, the first year of its existence, the Air Force Institute's age requirement was waived and a few pilots attended the flight school at a older age.

The staff is entirely ex-Aeroflot, DOSAAF, and Soviet Air Force personnel, as well as civilians with the appropriate background. The engineers have a 50% civilian/military background. The remaining Institute specialties are: aircraft technicians, armorers, and electronics technicians. All graduates become officers, and they return to the Institute for a year for further education to become engineers instead of technicians.

The majority of pilots came from DOSAAF (80%) trained in Armenia in the years of the Soviet Union by Instructor Pilot Daniel Balayan and the remaining were Soviet Air Force Academy graduates.

With the withdrawal of Russian troops in 1988, the DOSAAF infrastructure at Arzeni aerodrome was left intact. The newly-born Air Force had 20 Yak-52/ Yak-50 and a Yak-55 for aerobatic display, with an IFR equipped Yak-18T. Recruiting of pilots is based on selecting civilian and military pilots from the DOSAAF, an aeroclub that acts as a recruiting pool for youngsters.

## Flying a Yak-52

I asked if I could get an idea of what it is like to fly with the Armenian pilots. My answer materialized when I visited Arzeni aerodrome outside Yerevan. Arzeni is the Institute's proving ground where the cadets show their best to their Instructors. Arzeni is a small village on the road to Lake Sevan approximately 30 km east of the capital Yerevan. (Note 1) This airbase was constructed during 1943 with a pre-fab runway and hosted a regiment with Il-2 Shturmovik and Mig-3 during the Kuban operations. Arzeni is situated at an altitude of 1250 metres. After the war, Arzeni became a DOSAAF base for an aeroclub with Yak-18 serving Armenian pilot recruited for the Soviet Air Force and PVO. Later, a second runway was constructed as Yak-52, and Yak-55 became available.

My Instructor Pilot for this flight is Arthur, one of the Institute's Instructor Pilots. Arthur has logged over 1700 hours on Yak-52s, and he holds the rank of Captain in the Air Force. He is also one of the first graduates of the Institute when it was established. We first go over a quick briefing where I am advised not to wear my sunshades and not to carry my camera. I wonder why. Arthur replies, "*We are just going to give you a familiarization flight*". I reply by saying that I have performed aerobatics for many years. "*No worries*", he says as we walk towards the plane. A technician straps me in the rear seat of Yak-52 s/n 127, an ex-DOSAAF airplane. Arthur explains, "*We are going to start with a spin from 3000 meters altitude and we'll take it from there with a loop (petlya) and a hammerhead (shtopper)*".

My impressions of the instructors at the Armenian Air Force Institute are most favorable. They are no different from the Greek Air Force pilots I have known, nor do they look very different from any pilot of a small NATO air force. You can distinguish a sort of a pride in their eyes.

I had never flown in a Yak-52 before, so this "familiarization flight" would be my first in a Russian-built acrobatic plane. I got a quick orientation in the cockpit. The instrumentation is far different from the American-made airplanes I have flown,. However, due to my brief experience with European trainers – I have had a few hours in a Zlin-242L - and a little experience flying the Kamov-32C, I could figure out the instruments. The backseat cockpit is rather claustrophobic and the switches are reminiscent of WW II!

Arthur carries on with the preflight checks, and he fires up the nine-cylinder Vendeyev M-14P engine. During the warm-up, the throttle is set at 70%. A quick call is made to the "contact car" – there is no control tower. After the warm-up, we taxi onto the runway. This is also new to me as the hand-brake is on top of the control stick, just like a WW II fighter. Arthur makes a quick check of the flight controls, and I check the quick release canopy opening mechanism as line up with the runway. Arthur guns the engine and we are off down the runway. At 100 k/h, the airplane lifts off the runway and we are climbing at 120 k/h.

The scenery evolving underneath our wings is superb. The hills have a reddish brown color, and with the green orchards they create patterns of green and brown. Another dream has become reality - flying a military trainer of the Armenian Air Force. In the background, the Arakatz Mountains are clearly visible with their snow-capped peaks reaching 4090 meters (13419 feet). With the airspeed at 170 k/h, we climbed to 2,500 meters (8,300 feet). Arthur lets me take the controls for a little while to get the feel of the airplane. The he asks me if we can start the show. While we are still climbing, he suddenly cuts the throttle stalling the airplane at about 110 k/h. Applying right rudder, he enters into a two-turn spin. We exit the spin. The response of the airplane felt quite normal - in close resemblance with the Zlin-242L.

I ask to get the controls back for a bit and carry a few left and right rolls with an indicated airspeed of 230 k/h

having as a reference point the snow caps of the Arakatz Mountains. Arthur takes the controls back and executes a loop with an entry-airspeed of 300 k/h. During its course, the g-meter pegged at +5.0 g. Immediately after that, he entered an outside loop during which the g-meter shows negative 3G. Showing no mercy by giving me enough time to recover from the excessive amount of g's, Arthur resumes with a Cuban-8 and a hammerhead stall. I wasn't used to such a rapid onset of g's without having a break. Arthur kept asking me if I was OK. (Note 2) The Russian training philosophy is based on high-g maneuvers, and the Yak was designed with +7.5/-3 g in its normal flight envelope.

I asked to get the controls back to practice some combat breaks. The Yak with its thin tapered wing almost entered a stall during these combat breaks.

The sortie was coming to an end and we came in for a low approach directly over the old DOSAAF field performing a half loop!! At the end of this half loop, Arthur brings the plane down to 1550 meters Indicated Altitude which is the Traffic Pattern Altitude. I asked again to have the controls, but due to my inability to cope with the Russian terminology used for communication with the ground, and the airfield being strange to me, Arthur thought otherwise. He made a low approach and then a short circuit a 30 degree bank to get aligned with the runway. In due course the gear was brought down and at 115 k/h the tiny Yak touched down.

After this flight I received handshakes from my Instructor Pilot and the officer in charge of the cadets. At the debrief with Col. Balayan and his staff, I figured out that these pilots stay sharp not so much by logging flight hours, but with an overdose of aerobatics in high-g maneuvers. Thus, Armenian pilots with the guidance of Col. Balayan over the years have trained under these methods. They have had some good training by the world-famous Russian aerobatic champion Victor Chmayl. Thus, by keeping their flight hours low and practicing exacting aerobatics, Col. Balayan assured me that his pilots can maintain flight proficiency and develop g-tolerance up to +7 g.

Kyriakos Palouljian, Greece.

## Notes

1. Arzeni carries on an historical heritage. This valley was the ancient battleground for the troops of Queen Semiramis against the troops of the Armenian King, Ara Kejetsig "Ara the Beautiful". After the end of the battle and while dusk was falling Queen Semiramis troops found Ara Kejetsig's corpse. Semirami's generals carried his bloodied

corpse to Queen Semiramis, who had tried to strike a deal with him, asking: *"Was this battle was this worth it?"* Tradition has it that this is the origin of *Arz eni*, meaning "Is this worth it?" in Armenian. Today, it certainly is as there is a constant striving for perfection by Armenian cadets and their instructors to

produce pilots for the Armenian Air Force.

2. A human can tolerate +5 g for a short period of time, but if it is sustained for longer period he will certainly black out (a loss of consciousness). However, with practice, a person can manage to creep up to even +6 to +7 g – even without the protection of a g-suit.



# The Korean People's Air Force

in the Fatherland Liberation War

## Part 11: Fighting at Night

Douglas C. Dildy

### Where There Are Bombers, Fighters Will Come

Following the disastrous (for the Americans) daylight bombing raids during October 1951, in which eight B-29s were destroyed and another five damaged, on October 28 (Note 1), FEAF HQ ordered its Bomber Command to switch exclusively to night bombing attacks, flying 2,500 sorties during the first five months of night operations, augmenting Fifth AF's B-26 Invaders and significantly increasing the night attacks on, and damage to, North Korean railways and other CPVA supply lines. In response, the Soviets transferred their only night-fighter unit, Lieutenant Colonel (Lt Col) I. A. Yefrimov's 351<sup>st</sup> OIAP (Otdel'nyy IAP, "independent fighter aviation regiment", with 28 pilots and 20 La-11s (four of which were non-operational due to expired engine life; Note 2), from Lüda (now Dalian, the former Imperial-Russian Port Arthur) to Anshan.

At night, the Soviet radar network (64<sup>th</sup> IAK's 114<sup>th</sup> Radio-Technical Regiment) effectively tracked the B-29 formations and occasionally the individual B-26 intruders on their nocturnal raids, feeding the information to Colonel Ye. A. Belenko's 10<sup>th</sup> Independent Searchlight Artillery Regiment, whose RAP-150 radar-directed searchlights (Note 3) occasionally "coned" the American bombers, but the 351<sup>st</sup> OIAP's La-11s generally proved too slow to intercept them. (Note 4)

Consequently, General Lobov ordered Yefrimov's 1<sup>st</sup> Eskada to convert to MiG-15s, leaving 2<sup>nd</sup> Eskada (under Capt Dushin, already credited with destroying a KMT B-25 over Shanghai in 1950 and a B-26 over North Korea in November) with La-11s to attack the slower B-26s while the new jet fighters intercepted the B-29s. To facilitate the conversion, seven Yak-17UTI two-seat jet trainers were withdrawn from the front-line 303<sup>rd</sup> and 324<sup>th</sup> IADs. On 22/23 November a USAF B-29 operating over Uiju reported being trailed by five "jet fighters" for 25 minutes, the interceptors having been vectored to the bomber by Soviet GCI, and finally broke off their pursuit 20 miles (32 km) west of Hamhung. Respecting the Superfort's 20mm tail guns, the unarmed Yak trainers kept their distance, the exercise apparently being conducted entirely to provide radar-controlled intercept training for the pilots. Three weeks later a B-26 crew – while being "coned" by 12-16 searchlights southeast of Sinuiju – turned the tables on the neophyte interceptor pilots, reporting that they had "engaged and damaged an enemy jet aircraft which appeared to be a MiG-9." As reported in SAFO #140, the MiG-9 was a Soviet-made first-generation jet fighter with

the same "engine forward" configuration as the Yak-15/17UTI, but because it is known that MiG-9s (or Yak-15s) never appeared in North Korean skies, it is probable that the interceptor was a Yak-17UTI on another practice night intercept sortie.

At the end of the year Yefrimov's pilots transitioned to the MiG-15bis and were observed flying their first night intercept missions over North Korea in their new mount on 29 January. Once their proficiency in night flying and GCI intercepts increased to an acceptable standard, to shorten the range and response time, on 7 May Yefrimov and his 1<sup>st</sup> Eskada deployed nine MiG-15bis to Langtou – the only frontline airfield with runway lights – to begin combat operations. Additionally, the 2<sup>nd</sup> Eskada of the newly arrived 147<sup>th</sup> GvIAP (133<sup>rd</sup> IAD) also completed training as a dedicated night fighter unit and their eleven MiG-15bis joined the 351<sup>st</sup> OIAP at Langtou a week later.

Because the MiG-15bis lacked an onboard radar, Yefrimov's units were totally reliant on GCI control to vector them into the target's vicinity (with an attack vector, approaching the target from astern/six o'clock) with GCI-coordinated radar-directed searchlights illuminating the targets for the MiG pilot's night attack. While the KPAF was building a fairly robust radar network in North Korea (see below), the Soviets established a separate, very effective GCI network to provide the more demanding "close control to the stern" required of night intercepts. To do so, during 16-19 April, the 114<sup>th</sup> Radio-Technical Regiment established four new GCI radar installations south of the Yalu River, at Supungdong, Heiju, Pyongyang, and Anju, (Note 5) providing radar coverage to approximately 160 miles (250-270km) south-southeast of the Yalu River.

All the training, preparation, and effort culminated in a resounding success when, on the night of 10/11 June, four MiG-15s intercepted a stream of eleven B-29As (19<sup>th</sup> BG) bombing railroad bridges at Kwaksan (near Chongju). Ten of the approaching bombers were illuminated by radar-guided searchlights and, using GCI vectors – and reportedly aided by an "airborne attack coordinator" (possibly flying in a Yak-17UTI) – Yefrimov's MiGs closed in and attacked, shooting down two Superfortresses and damaged a third so badly it force-landed at Kimpo AB with one wounded aboard. (Note 6) FEAF Bomber Command acknowledged, "this attack was a well-planned, integrated effort, with ground-to-air and air-to-air coordination."

## KPAF 56<sup>th</sup> GFAR Becomes a Night Fighter Unit

Meanwhile Capt Dushin's La-11 squadron, continuing to operate from Anshan against Fifth AF B-26 night intruders, also finally scored, shooting down an RB-26C (44-35668 from the 12<sup>th</sup> Tactical Recon Sqn; three crewmen MIA) on 15/16 May. Three weeks later, Dushin himself destroyed a B-26C (44-35760 from the 13<sup>th</sup> Bomb Sqn (L)/3<sup>rd</sup> BG(L); three crewmen MIA) about 9 miles (15 km) southeast of Sinmi-do Island on 5/6 June. After this victory, 2<sup>nd</sup> Eskada also transitioned to the MiG-15bis, handing over their 16 remaining La-11 night fighters to the KPAF's 56<sup>th</sup> GFAR.

The North Koreans developed an early interest in ground radar, GCI operations, and night intercept capabilities, establishing a command post at Langtou using a portable PO-03 "repeater scope" from the local Soviet P-20 "Periscope" GCI unit and, by the end of November 1951, had installed their own radar unit at Uiju. The two radars were linked and although the primary operating language was Korean, the inter-net transmissions were repeated in Russian. Becoming a "parallel [to] the Soviet GCI radar net in Korea" the KPAF network controlled MiG-15s in day combat using Korean, Chinese, and Russian, depending on which nation's unit they were directing.

Early the next year, the KPAF expanded its radar and GCI network southwards, installing radar units at Pyongyang's Mirim small sod airfield and Sariwon (35 miles south of Pyongyang), also linking them by land-line. Between these forward GCI sites and the rear echelon at Uiju-Andong, the KPAF installed a fifth radar unit at Suchon, about 40 miles south of Sinuiju. Using all three languages, during a two-week period in mid-February, the parallel and independent KPAF GCI directed 142 aircraft.

After withdrawing from Sinuiju to Dongfeng airfield (near Tonghua, about 120 miles/193km northeast of Shenyang) at the end of January 1952, the "Guards Taejon Regiment" enjoyed a short rest before beginning training in night operations. These were observed through radio intercepts of "North Korean air voice traffic" (by USAF 6920 Security Group Johnson AB, Japan) and reported that in April "North Korean aircraft are making many night flights", apparently still operating their tired Yak-9Ps. Two months later the unit transferred to Anshan (about 57 miles [92km] south of Shenyang) where they received the 351<sup>st</sup> OIAP's remaining La-11s and began night fighter training, apparently with Dushin's squadron acting as instructors.

For 18 months USAF B-26s (3rd and 452nd BGs) and USMC F4Us and F7Fs (VMF[N]-513) had been flying night intruder and attack missions against trains and truck convoys in North Korea. To provide target illumination for their nocturnal strikes, Fifth AF used flare-dropping C-47s (called "Fireflies"). Similarly, beginning in June 1951, the USN began using a combination of Corsairs and

Tigercats striking truck convoys illuminated by Convair PB4Y-2 Privateers (VP-28, based at Itami, Japan) on "Lamplighter" missions. With a loiter time of six hours and carrying 250 flares, the four "Lamplighters" provided nightly illumination for relays of Marine night attack aircraft. To the Guards pilots of the 56<sup>th</sup> GFAR, these were self-illuminating targets.

On the night of 7 June, a "Lamplighter" spotted and "lit up" a convoy of seven trucks south of Sariwon, calling in an F4U-5NL, flown by First Lieutenant John W. Andre, to "work them over" with napalm and 20mm strafing. As he rolled in for another pass, Andre was suddenly surprised to see 23mm tracers – "flaming golf balls" – streaking over his left wing, then beneath him, then over his right wing. The attacker overshot, passing the Corsair to the right, Andre quickly identifying it as a Yak-9 painted in dark camouflage, and banking right and squeezing his trigger, he riddled it with a volley of 20mm cannon fire. Flames streamed from beneath the engine cowlings and the Yak dove away, Andre pulling up to keep from following it into the dark terrain below. The "Lamplighter's" spotters reported the Yak exploding on ground impact.

Undaunted by this loss, and taking advantage of their growing GCI network, it seems the rebuilt 56<sup>th</sup> GFAR again attempted to range across the frontlines, as it had two years before. Surprising everyone (on the UN side at least), on the night of 18 July, a USAF B-26 was "briefly engaged [by] two conventional fighter aircraft about 25 miles (40 km) south of the front lines in central Korea." Due to the range involved, these were likely La-11s (designed as a long-range escort fighter (Note 7) instead of the Guards' short-legged Yak-9P interceptors.

The 56<sup>th</sup> GFAR continued training to become the KPAF's premier fighter unit, capable of operating in several additional roles. For example, in early August, its La-11 squadron practiced fighter-escort missions in the rear area, coordinating with GCI to join with and escort Tu-2 bombers, and in late October made at least one daytime "fighter sweep" as far south as Pyongyang, remaining "on station" over the North Korean capital for 15 minutes in spite of the presence of F-86 Sabres operating in the area.

## KPAF Night Bomber Operations

By early 1952, Pak Den-Sik's small squadron of six Po-2LSh biplanes had been reinforced with five Yak-18 light trainers modified as night bombers, based at Sariwon and two small camouflaged "practice fields" nearby. Additionally, on about 7 April, a second squadron, with seven Yak-18s, arrived in the Sinuiju area (probably the small sod field called Namsinuiju ["south Sinuiju"]). Together, these constituted what USAF SIGINT discovered to be the KPAF's 3<sup>rd</sup> Bomber Regiment. These units were not particularly active during the spring months

of 1952, with their aircraft being dismantled and dispersed to prevent discovery and destruction by roving UN fighter-bombers. However, on 8 and 9 July the Yak-18 unit at Sinuiju was observed participating in night flying training that appeared to include night bombing practice.

Five days later there were indications of renewed combat activity when KPA HQ warned frontline Chinese Volunteer Army units that “Airplanes of the [Korean] People’s Army will take off to carry out their duties... behind enemy lines” and that the KPAF airplanes would be recognized by the distinctive sound of the five-cylinder Shvetsov M-11 radial engine (that powered both the Po-2 and Yak-18) which was “similar to the motor of a truck.” Radar evidence confirms night flights were undertaken from the Pyongyang valley to east central Korea – where ROK army units reported light, sporadic and ineffectual night bombing – in late July, coinciding with the 56<sup>th</sup> GFAR’s La-11 “fighter sweeps”.

Three weeks later (17 August) – just after the 2<sup>nd</sup> FAR’s planned attempt to strafe USAF F-86s at Kimpo was cancelled (see SAFO #148) – USAF COMINT units (501<sup>st</sup> Communications Reconnaissance Group) copied KPAF HQ’s notification to the Sinuiju command. “Request your 132<sup>nd</sup> Branch Unit attack the Han River airfield [Kimpo] and Suwon.” (Note 8)

Pak Den-Sik resumed regular combat operations on 13 October when four Po-2LSH biplanes raided the USAF’s 608<sup>th</sup> Aircraft Control and Warning Squadron radar and air direction center on Cho-do Island (callsign “Dutchboy”). Strafing with light machine guns and dropping eight pairs of small bombs, most of them within 200 yards/meters of the SCR-270 radar site, killing five Korean civilians and wounding two US servicemen. None of the intruders were damaged by .50-caliber machine gun fire from the local air defense unit, Battery A/933<sup>rd</sup> AA Artillery (Automatic Weapons) Battalion. As they departed, a USAF F-94 Starfire achieved radar contact and made six firing passes, but each time was foiled by the biplanes’ slow speed and nimble maneuvering.

A month later (12 November) an unknown number of raiders (type also unknown) bombed the island of Paengnyong-do (called “P-Y-do” or K-53 by the USAF) attempting to damage the 608<sup>th</sup> AC&WS’s secondary surveillance radar. The raiders caused negligible damage.

Because the new radar-equipped USMC F3D Skyknight night-fighters were beginning to have a negative impact on the 351<sup>st</sup> OIAP’s night intercepts of FEAF B-29s (see below) – especially when working with “Dutchboy” GCI controllers – Pak Den-Sik’s 3<sup>rd</sup> Bomber Regiment was ordered to renew its attacks on Cho-do Island. These began on 26 November with “six unidentified single-engine piston aircraft” attacking in two waves of three, dropping ten or eleven bombs, but causing no damage.

On the night of 5/6 December Pak Den-Sik’s 3<sup>rd</sup> Bomber Regiment launched a “maximum effort” with all of the 1<sup>st</sup> Battalion’s 11 Po-2s and Yak-18s dropping bombs in the Seoul area – in what was noted to be “the largest enemy [air] raid of the war” – and four attackers (most likely those of the Sinuiju-based 2<sup>nd</sup> Battalion) dropping ten bombs on Cho-do and two more on nearby Sok-to. However, none of the raiders caused any damage and there were no casualties.

Stationed nearby, HMCS Crusader – a 1,825-ton former RN WW2 C-class destroyer mounting three quick-firing 4.5inch turrets and three paired 40mm Bofors AA guns – fired 79 rounds into the night sky but failed to hit any of the raiders. Five nights later the “night-hecklers” returned with equally ineffective results.

The increased operations tempo continued to the end of the year with Po-2s and Yak-18s attacking – in two relatively large raids – Seoul, Inchon, Kimpo, and Suwon air bases, and the rear areas of the ROK’s First Army, causing minor damage and wounding some South Korean troops during the last-mentioned strike (22/23 December). In a departure from their nocturnal bombing missions, on 30/31 December Pak Den-Sik’s raiders flew over Seoul, Kimpo, and Suwon dropping propaganda leaflets, welcoming the New Year.

### **Battles of the Night Fighters**

To counter the KPAF’s nocturnal “heckler” attacks, in March 1951, the USAF replaced the antiquated and awkward F-82 Twin Mustangs of the 68<sup>th</sup> (AW)FS with 15 new jet-powered Lockheed F-94A Starfires, basing a two-ship detachment on strip alert at Suwon. A year later, these were replaced by the 314<sup>th</sup> FIS with improved F-94Bs. Anxious to avoid having Hughes Aircraft Company’s new AN/APG-33 air intercept (AI) radar (developed from the AN/APG-3 used by SAC’s new B-36 nuclear bomber’s tail gun) and E-1 fire control system fall into Communist hands, FEAF limited Starfire operations to over friendly territory only.

To increase protection of USAF B-29s flying over enemy territory, in May 1952 VMF(N)-513, based at Kunsan (K-8), received 14 new Douglas F3D-2 Skyknight night-fighters. Powered by a pair of 3,400lb thrust Westinghouse J34-WE-36 turbojets, the big, boxy, straight-wing two-seater was equipped with the Westinghouse AN/APQ-35A radar (15-20 mile search/2.25 track ranges) and armed with four 20mm cannon. The aircraft’s performance was unremarkable, but this (and its radar) allowed it to mingle with the B-29s en route to the target, and its rather advanced search and tracking AI radar permitted relatively autonomous operations. In addition to escorting FEAF bomber streams, F3D missions flew an area south of the Yalu River in east-west racetrack-shaped “barrier patrols”, sometimes receiving vectors from “Dutchboy” when enemy

night-fighters were detected crossing the Yalu southbound for their targets. After some initially crippling operational difficulties, the Skyknights began their NCAPs (night combat air patrols) in mid-October.

Two weeks later, the 351<sup>st</sup> OIAP lost its first jet to the USMC Skyknights. As Major William T. Stratton stated in his combat report, "On 3 November 1952, at approximately 0107hrs, at 14,000 feet, contact was made on radar [by R/O Master Sergeant Hans C. Hoglund]. Unidentified, at same altitude, same heading approximately 330°, speed 320 knots, distance 7 miles. Closed to 2,100 feet [where] visual sighting was made of single-engine jet-type aircraft identified as Yak-15 at 0110hrs. After some delay, permission was given by 'Dutchboy' to 'Bag Bandit'. Opened fire at 0113 at 12,000 feet altitude, 1,200 feet [range] from directly astern. First burst hit the port wing of bandit, second the fuselage, third entered the tailpipe, exploding therein. Three explosions in all were observed and the plane smoked heavily as it went down. Last seen at 6,000 feet still on fire and smoking." Credited with a "Yak-15 kill", the target was almost certainly a Yak-17UTI on a night-intercept training mission, or an "airborne attack coordinator" returning to Andong.

Five nights later the 351<sup>st</sup> OIAP lost another jet when Captain Oliver R. Davis and Warrant Officer Dramus F. Fessler were vectored towards a fast moving target ten miles away (16km) at 12,500 feet (3,810m). Diving from 19,000 feet (5,790m) and pushing the throttles to full power, Davis followed "Dutchboy's" vectors until Fessler got radar contact and steered Davis to starboard, getting him close enough to see the dark shape and the glow of the

jet exhaust. Asking the GCI controller to confirm the target was hostile, the response was "Bag it! Bag it!"

Davis later reported, "The bandit began a hard turn starboard. I turned with him and fired a short burst of about 20 rounds of 20mm into the tailpipe. There was an explosion and parts flew past my airplane. I was closing dangerously. I pulled hard back on the stick and since I was already in a hard starboard turn, I passed the enemy to his right. I observed flames and black smoke passing from the center portion of his plane. After reversing my turn, I picked up a visual on the aircraft as it descended and crashed." Davis and Fessler had shot down Senior Lieutenant I. P. Kovalev, who posthumously received credit for "probably destroying" the attacking F3D.

Finally, on 10/11 December, Pak Den-Sik's "night hecklers" felt the effectiveness of the Marine Skyknights when Lieutenant A. Joseph Corvi and Sergeant Daniel R. George were vectored against a slow moving "bogie" flying at 2,000 feet (610m), off the west coast of North Korea, south of (and apparently headed towards) Sinanju. Obtaining radar contact and a confirmation that the target was a "bandit" George steered Corvi to an attack position and, still unable to see the target, he opened fire with the F3D's quartet of 20mm cannon.

Corvi later reported "we didn't know we had made a kill until my R/O reported a wing and flaming debris flying past us." The victory was credited as a Po-2, but was probably a Yak-18 from 3<sup>rd</sup> Bomber Regiment's 2<sup>nd</sup> Battalion returning to Sinuiju from the unit's mission of bombing Cho-do Island.

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## Notes

1. These were: October 22: 19<sup>th</sup> BW/30<sup>th</sup> BS 44-61656; October 23: 307<sup>th</sup> BW/371<sup>st</sup> BS 42-94045 and 44-70151, and 372<sup>nd</sup> BS 44-27347 (DBR), 44-61940, and 44-86295 (DBR); October 24: 98<sup>th</sup> BW/343<sup>rd</sup> BS 44-61932; and October 27: 19<sup>th</sup> BW/30<sup>th</sup> BS 44-62971 (DBR).

2. The 351<sup>st</sup> IAP had been in the PRC since February 1950, flying 39 La-11s to Jiangwan airfield near Shanghai to help defend that city from Nationalist Chinese (KMT) attacks and train the PLAAF's 11<sup>th</sup> FAR. Once that mission was completed, in June 1951, they were transferred to Lüda airfield on the Liaoyang Peninsula, becoming the 83rd OIAK's (PVO) night fighter unit. The regiment was transferred to Anshan on 9 September 1951.

3. With their searchlight batteries in Korea, the Soviets deployed several British-supplied 1.5m wavelength Anti-Aircraft (AA) No. 2 searchlight control radars obtained through WWII Lend-Lease Programme.

4. In late November 1951, USAF intelligence reported a Soviet "group of about 25 La-11 conventional fighters has carried out

nightly patrols into Korea from Anshan since early October." Following an unsuccessful intercept on 12/13 October, a pair of La-11s attacked a B-26C, illuminated by as many as 15 radar-directed searchlights, on the night of 16 November, over the Chongchon River causing "major damage" to the aircraft (kill credited to Capt Dushin).

5. The Soviets' air defence radar network was built around a modern, semi-mobile, 10cm wavelength E-/F-band P-20 "Periskop" ("Periscope", called "Token" by the US/UK) GCI and early warning radar located at Langtou airfield, positioned on a small hill between the 64<sup>th</sup> IAK and 1<sup>st</sup> UAA Command Posts. It had an effective range of 90 miles (166km) and was augmented by four other, older (P-3 "Dumbo" and P-8 "Knife Rest") shorter-ranged "gap filler" radars at what were called VPU's (*Vynosnyy Punkt Upravleniya*), "auxiliary command posts") at the four locations mentioned and by eight visual reporting posts all of which were linked to the 64<sup>th</sup> IAK/KP (command post) via an HF radio network.

6. These were 44-62183 (28<sup>th</sup> BS; 14 MIA) and 44-61967 (30<sup>th</sup> BS; 1 POW/12 MIA), both attacked by Capt Anatoliy Karelin (351<sup>st</sup> IAP). Karelin had another success on 3/4 July, shooting down RB-29A 44-61727 (91<sup>st</sup> Strategic Reconnaissance Squadron; one KIA, one MIA, eleven POWs).

7. The La-11 was the long-range "penetration fighter" developed as a modification of the very successful La-9, intended to provide escort to the Soviets' new Tu-4 (B-29 copy) heavy bomber. The La-11 sacrificed one NS-23 cannon and 75 rounds of ammunition for increased fuel tankage (1,100 liters/290 gallons vice 825 liters/218 gallons) and an ARK-5 automatic DF radio compass, as well other enhancements to increase engine endurance and pilot comfort for long flights. The added fuel extended its combat range from 659 miles (1060km) to 1,024 miles (1,648km) with a nearly five hour (vice three hour, 21 minute) endurance.

8. This code designation breaks down as "1<sup>st</sup> Combined Aviation Division/3<sup>rd</sup> Bomber Regiment/2<sup>nd</sup> Battalion", i.e., the Yak-18 unit at Sinuiju.

# Operations Dawn

## Multinational Missions in Albania

Ted Koppel

### **The First ALBA (1997)**

The Multinational Protection Force (MPF) mission in Albania came about as a result of civil unrest caused by a financial crisis. Widespread riots, joined by militias and armed civilians, led to the near-shutdown of the Albanian government. Mobs looted armories as police and military deserted. (At this time, two Albanian Air Force Mi-4 Hounds and a MiG-15UTI Midget defected to Italy along with the great exodus of refugees crossing the Adriatic Sea.) As the European Union debated about sending a Military Police mission to stop the anarchy, the United Nations Security Council (UNSC) authorized Italy, due to its proximity, capability, and historical connections to Albania, to form and lead a multinational emergency force. Locally named *Forza Multinazionale di Protezione*, (FMP), it was more commonly known as Operation ALBA, meaning "dawn" in Italian, most likely for the geographically east location of Albania. (Also referred to as *Operazione Alba* or *Missione Alba* in Italian, and at least one source has listed it as "Operation Sunrise.")

Originally the MPF consisted of eight countries: Austria, Denmark, France, Greece, Italy (as lead and bulk of force), Romania, Spain, and Turkey. But it very soon expanded to ten, and then eleven, with the addition of Hungary, Portugal, and Slovenia. (Several sources claim this as only a 10-nation mission.)

The UNSC resolution took place on 28 March, 1997. By the first week in April, advance Special Forces teams (reportedly from Spain, France, Greece, and Austria, or, according to another reference, just Italy and France) landed to secure the Tirana airport and the seaport at Durres to prepare them for the D-day on 15 April, when Italian, French, and Spanish forces began arriving, immediately followed by the Greeks. Armor and other vehicles came in through the seaport, along with additional troops. Total strength eventually reached almost 7,500 military personnel.

Along with the task of helping secure all government and military facilities, the main mission of ALBA was humanitarian aid by enabling emergency food and medicine to be distributed

throughout the country. Escort duties were also provided for the unarmed observer teams of the Organization for Security and Cooperation in Europe (OSCE), especially leading up to the June and July elections, for which additional multinational (European) civilian monitors were brought in. The UNSC had extended the MPF mandate on 19 July to protect the elections.

Backing up local authorities in the disarming of the rebellious and criminal elements was equally critical. In at least one case, to gain control over armed gangs holding a coastal town, an air and amphibious assault was required.

At first, air transport on D-day was provided by Italian and Greek AF Hercules aircraft. It is likely that other nations' planes were also involved at that time. (It is possible that the Greek and Italian C-130Hs were utilized only for this initial deployment. Continuing in-country aviation support was supplied primarily by Italy. Those assets included C-130Hs, Aeritalia G.222 (also used on D-day), Agusta A.109EOA, Agusta A.129 Mangusta, Agusta-Bell AB.205, Agusta-Bell AB.412, and Boeing CH-47s from several Army and Air Force units, perhaps on a rotational basis. At the present time, it is not certain what helicopters or other aircraft France may have provided besides the two Army Aerospatiale SA.330 Pumas used for MEDEVAC duties.

The final tally for the first ALBA shows 1,300 flight-hours for fixed-wing aircraft and 750 hours for rotor-wing, so it is quite possible more fixed-wing aircraft were involved. It is unclear if these statistics include the Italian AF and Navy coastal patrols, reinforced in March 1997, while trying to stem the ongoing illegal immigration from Albania to Italy.

On a related note, also in March, at least one US Marine Corps Sikorsky CH-53 Sea Stallion was used to evacuate US citizens from Tirana. Available photos show fully-armed Marines protecting a Sea Stallion which has a large, white "SFOR" on its side, indicating that it had been diverted from the NATO-led "Stabilization Force" multinational mission in nearby Bosnia.



With the gradual, general disarming of mobs and the tentative stabilization of the country, which had enabled new elections, Operation ALBA officially ended on 12 August 1997. It should be noted that, although UN-sanctioned, this was not an official United Nations Organization mission.

#### Post-ALBA

Due to the total demoralization and disarray of the Albanian Armed Forces, some Italian officers remained as advisors. In August, they formed the Italian Delegation of Experts (DIE, *Delegazioni Italiani Esperti*) to set up training teams and arrange for delivery of supplies. Likewise, by September, a new Greek contingent, the Hellenic Military Liaison-Advisors Mission, was created to help reform and train the Albanian Forces; a mission that continued for several years. There is some indication that a Greek CH-47 Chinook could have been brought in during this time.

#### Markings and emblems of the first ALBA

Illustrations on page 27

The FMP emblem, consisting of white "FMP" under an arc of eight yellow stars on a blue rectangle, was the official mission flag as well as the uniform and flight-suit insignie. Greek vehicles bore a variation of the eight yellow stars in a complete ring around the white "FMP", all on a blue square resembling the European Union flag. Even as the mission participation increased beyond the original eight countries, the number of stars was not increased. With so many countries involved, it is possible that some other national variations existed, despite the relatively short duration of Operation ALBA.

On Italian aircraft, a large, white serif-style "FMP" (stenciled) seems to have been the standard. White block-letter "FMP" were seen on some vehicles, so it is possible that French (and other?) aircraft could have carried something similar.

There is also an Italian Air Force ALBA emblem that shows the front-view of a jet over the black double-headed eagle on red of the Albanian flag, all against a sunrise. The bottom border shows the Italian flag colors with "28° Gruppo" superimposed.

#### Second ALBA (1999)

During the "cleansing" of ethnic Albanian in the Serbian province of Kosovo and the massive NATO air campaign against the Serbs, a flood of refugees

crossed the frontier into Albania. Since Albania was still weak in the aftermath of its own recent troubles, the "dawn" arose again in the form of the Swiss Air Force's "Task Force ALBA" that was organized to support the functioning of UNHCR (United Nations High Commissioner for Refugees) in this new humanitarian crisis.

NATO formed AFOR (Albania Force) in April, 1999. As in other NATO-led missions (IFOR and SFOR in Bosnia, the soon-to-be KFOR in Kosovo, and ISAF in Afghanistan, all with worldwide representation), the mix of participants here included NATO member countries, NATO-affiliated Partnership for Peace (PfP) nations, and non-NATO-related contributors such as the United Arab Emirates. Between 10 and 16 April, the preliminary and main deployments commenced. While the NATO core of AFOR was its multinational ACE (Allied Command Europe) Mobile Force - Land), an additional 24 contributing forces came from: Austria, Belgium, Canada, Czech Rep., Denmark, France, Germany, Greece, Hungary, Italy, Latvia, Lithuania, Luxembourg, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Switzerland, Turkey, UAE, UK, and USA., for a total of more than 12,000 troops.

The NATO name for this mission was "Operation Allied Harbor." It consisted of six Task Forces, each with a lead nation and one to four subordinate ones; the Italian Carabinieri Multinational Specialized Unit (MSU); Force Troops from eight nations; and of course Aviation. This air section also contained the US Army Aviation element called "Task Force Hawk." As is often the case, individual countries may have had their own name for their part in this overall mission. For example, Britain's was "Operation Spooner".

The Swiss ALBA operation, not part of AFOR, consisted of three AS.332 Super Pumas, although later two other Super Pumas were reportedly rotated through. However, there is photographic evidence that six different serial numbers appeared during the deployment. Perhaps the most unique aspect of this Swiss ALBA was their leasing and labeling of a Spanish Air Force CN-235 transport for regular use by the mission.

After a Swiss recon team had surveyed the Albanian location, preliminary staff and some troops were flown in by a Swiss AF Learjet 35A and a

Dassault Falcon 50 until the leased Spanish AF CASA and crew took over regular transportation duties between Switzerland and Albania.

The first Swiss helicopter arrived at Tirana's airport on 6 April, soon followed by the other two, via

a different route. This Task Force consisted of elements of Squadrons 5, 6, and 8. Due to the heavy work-load, two of the helicopters were replaced, with the final three returning to Switzerland on 26 July.

### Task Force ALBA/AFOR Air Assets

Austria AF	Agusta-Bell AB.212	(4)
France Army	Aerospatiale SA.330B	(?)
Greece	Boeing CH-47D Chinook	(1)
Italy	Sikorsky HH-3F Pelican	(?)
Netherlands AF	Boeing CH-47 D Chinook	(3+?)
	Bolkow Bo 105	(4)
Spain AF	Boeing CH-47D Chinook	(?)
	CASA CN-235-100 (leased by Swiss AF)	(1)
Switzerland AF	AS.332 Super Puma*	(3)
	Dassault Falcon 50	(1)
	Learjet 35A	(1)
	+ leased Spanish AF CN-235	
civ	AS.532 Cougar* (from HELOG Company)	(1)
UAE AF	AS.532F/L Cougar	(4)
UK AF	(support personnel only?)	
US AF	Lockheed C-130 Hercules	(?)
Army	AH-64A Apache	(?)
	S-70 Black Hawk	(?)
Navy	MH-53E Sea Dragon	(?)
mil/civ charter.	Boeing 747	(1)

### Notes

There may have been more aircraft types. As for the Greek CH-47D, it is not completely clear if it was newly deployed in April, 1999, with the expanded force or if by then it had been utilized by the smaller Greek Contingent already serving in Albania.

\*Magazine articles and other references seem to identify these Swiss helicopters interchangeably as Super Puma or Cougar, Eurocopter, or Aerospatiale, AS.332M1 or AS.532 Mk.1

Before AFOR concluded on 1 September 1999, the larger NATO-led KFOR (Kosovo Force) had been created on 12 June. The diminished mission in Albania then came under KFOR command in September.

### Post-AFOR

Some, if not most, military assets were transferred to the KFOR operation, either in Albania or in Kosovo. For example, it has been reported that 3 Royal Netherlands AF Chinooks stayed in Albania until nearly the end of September as part of the merged mission, while its Bo 105 detachment didn't relocate to Kosovo until 6 October. The Greek Contingent, which had

departed on 31 August 1999, reconfigured and returned on 23 October as the "Hellenic Logistics Mission in Albania."

### Operation ALBA Swiss markings

#### Illustrations on page 28

The most obvious addition to the standard Swiss Air Force helicopter finish is the large "UNHCR" identification in white, with a thin outline, on both sides of the fuselage and the tail boom. So far, it doesn't seem that the circular UNHCR logo was also applied. (The logo illustrated, is based on a close-up photo of a decal on a dark-colored military aircraft; it could be from the Bosnia missions in the 1990s.) The

standard finish, which looks overall green in almost all photos, even color ones, most likely is a camouflage of dark green and (darkish) olive green. The Swiss roundel is on the fin, and the sliding door has a thin red outline. Various labels, in black or red, appear on yellow squares or rectangles. The undersides appear gray, as do the aircraft serials. (Some serials seem lighter, but exhaust staining of the tail boom darkens all colors, including the rear "UNHCR".) The initial three helicopters deployed are listed as T-312, T-315, and T-322. T-321 reportedly replaced T-312, and what seems to be an end-of-mission photo shows T-320 and T-325, along with the original T-322. That's six different aircraft. It is claimed that the "UNHCR" letters were removed on 27 July 1999, the day after the return to Switzerland. Shortly thereafter at least two of them had the large, white "KFOR" applied to their sides for deployment with the Swiss Contingent to Serbian Kosovo.

Large white letters, "SWISS" and "UNIT," were added to the forward fuselage of the leased Spanish Air Force CASA CN-235. The transport, with black "35" and "24" framing the Spanish roundel, was finished in a camouflage of olive-drab, tan, and brown, with light gray undersides. The black and white unit shield (for "Ala 34"?) appeared below the cockpit windows.

#### AFOR markings and emblems

Illustrations on page 28

Due to the relatively short duration of this mission, it has been difficult to find sufficient pictorial references of its aircraft (in sharp contrast to the greater coverage of the Swiss operation). The typical/representative style of the white "AFOR" lettering applied to some vehicles was most likely also applied to aircraft. It should, however, be noted that such mission identification, as found in IFOR, SFOR, KFOR, less with ISAF (and somewhat even for UN missions), tended to vary considerably. As each participating nation was responsible for the identification application, it could show up as decals, stencils, roughly hand painted, etc., in a variety of styles.

The mission shield-emblem, shown here in an

assumed Czech sample, follows exactly the split, bilingual style used by IFOR and SFOR, and likewise subsequently adopted by KFOR. In those operations, it appeared on the mission flags, uniforms, sometimes vehicles, and even on a few aircraft, often with minor national variations. This style became so pervasive in the Balkan operations that even the UN adopted it for its International Police Task Force (IPTF) mission in Kosovo. But instead of the blue and white colors of NATO, or even the UN, these bilingual shields appeared in the police colors of yellow and black.

A sampling of unit emblems shows three from the switch-over of the Albanian mission's control from AFOR to KFOR. It is highly likely that these units were the same ones previously a part of AFOR.

(1) Netherlands Helicopter Detachment III: "NL HELI DET III 1999" has the NATO emblem and the Dutch flag, as well as "ALBANIE - KFOR - KOSOVO." (Was the AFOR detachment an earlier numeral or still "III"?) In the original insigne, the regional map is subdued, with only Albania highlighted. The helicopter silhouettes are for a Chinook and a Bolkow Bo 105.

(2) French Army (Light) Aviation Detachment Albania: "DETALAT ALBANIE" (*Détachement de l'Aviation Légère de l'Armée de Terre*) features the double-headed eagle symbol of Albania, superimposed on that country's map. The "OPERATION TRIDENT" (same in French and English) refers to the various French peacekeeping missions in Kosovo. The helicopter depicted is a (camouflaged?) Puma.

(3) Spanish Helicopter Unit: "KSPAHEL/UHEL-I" seems semi-clear, and one assumes the "K" prefix stands for Kosovo, although the map of Albania forms the background. The "V" at the bottom could possibly indicate the 5th rotation of the unit, perhaps from previous NATO (or UN?) missions. An amusing touch is that, besides the Spanish roundel on the bull's side, the Spanish fin-flash is shown on its rump. The small silhouette on the top ribbon is a Chinook.

Ted Koppel (SAFCH #118), USA.

# First "ALBA" (1997): MPF

MULTINATIONAL MISSIONS NOTES:



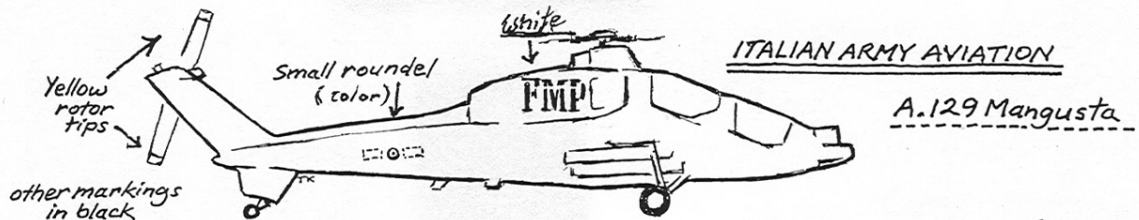
Flag design, worn on uniforms & flight suits



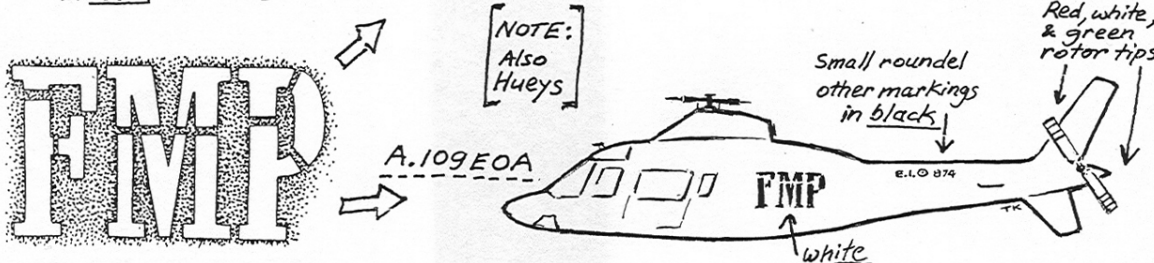
Vehicle marking, with variant "M" (not outlined?)



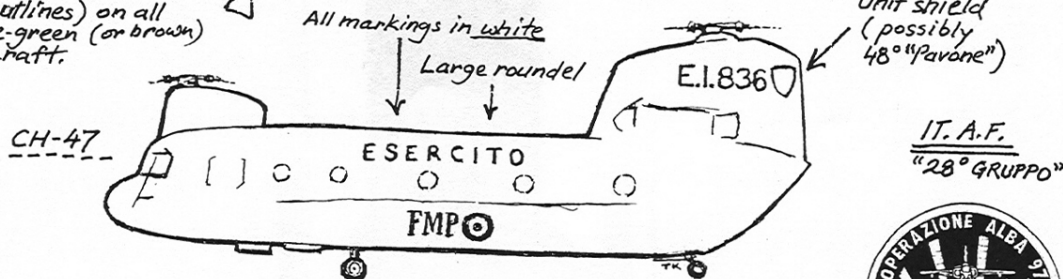
Approx. proportions of Greek vehicles emblem (yellow & white on blue).



A.129 Mangusta



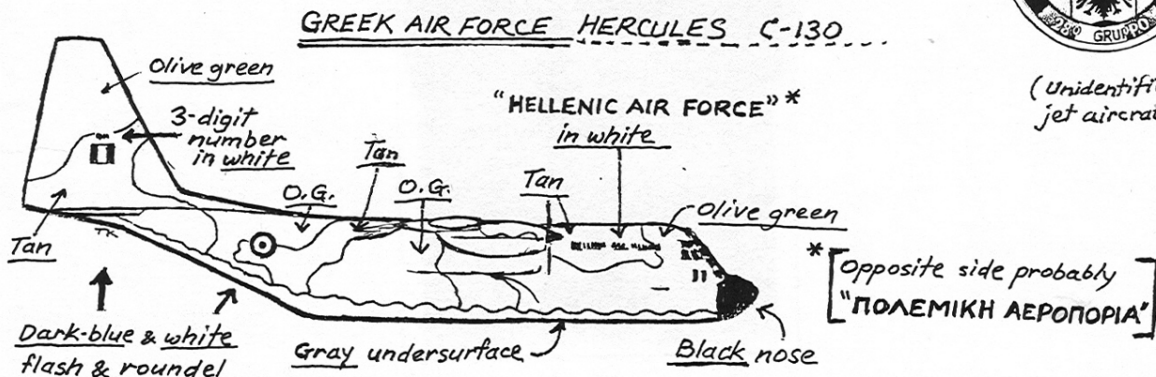
White stencil letters (no outlines) on all olive-green (or brown) aircraft.



NOT TO SAME SCALE



(Unidentified jet aircraft)

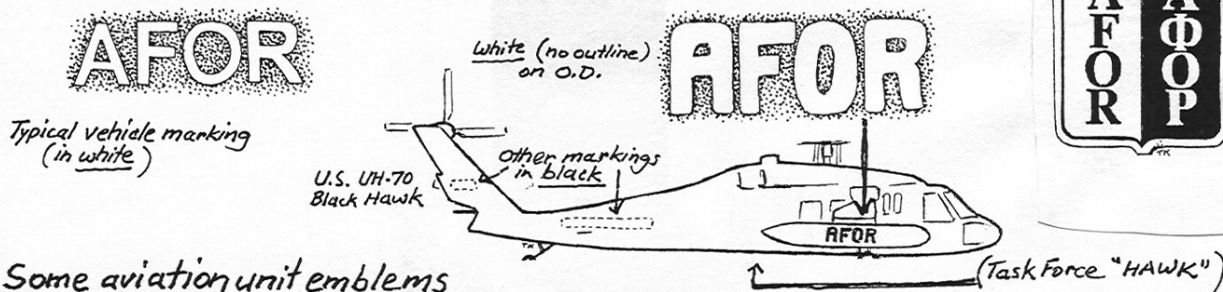
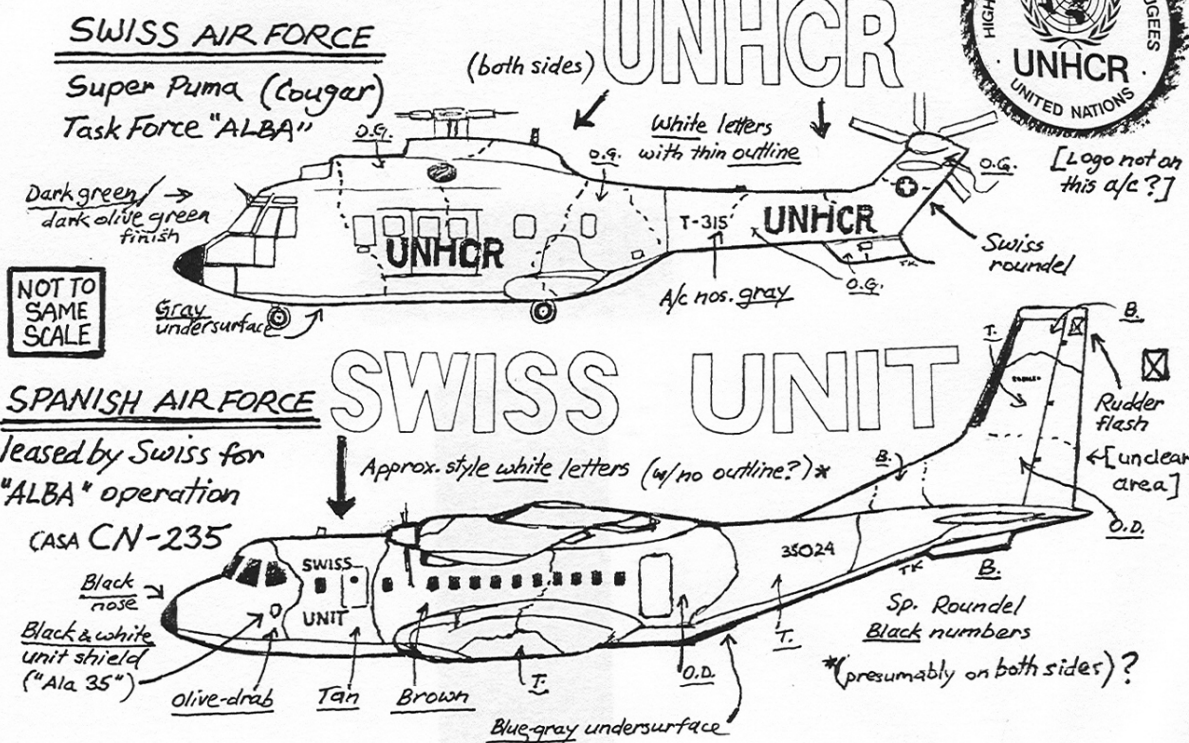


Peace/Force Project, T. Koppel (SAFCH #118), U.S.A

T.K. 2013

# Second "ALBA" (1999) & AFOR

MULTINATIONAL MISSIONS NOTES:



Some aviation unit emblems (AFOR/KFOR transition)



Peace/Force Project, T. Koppel (SAFCH #118), U.S.A.

T.K. 2013



# Yugoslav B-24 Liberators

Denys Voaden (SAFCH #1483) sent a photocopy of a chapter from the book *Tito, Mihailovic and the Allies 1941-1945*, by Walter R. Roberts, published by Rutgers University Press, 1973. This chapter describes the use of four B-24 Liberators by a detachment of Yugoslav airmen during WW2.]

In the United States at that time, Yugoslav-American relations were dominated by a trifling issue compared to the intractable problems which occupied the British and Yugoslav Governments. This issue was the arrangement for service of a group of Yugoslav airmen as a unit with the U.S. Army Air Force. As mentioned earlier, during King Peter's visit in Washington in July 1942, initial discussions took place regarding the possible training of Yugoslav airmen in the U.S. Several subsequent conversations led to the training of forty-two Yugoslavs brought from the Middle East to Salinas, California. The Yugoslav Government-in-Exile had assumed that these airmen would serve as a Yugoslav unit integrated into the U.S. Army Air Force in the Middle East. On June 28, 1943, the Yugoslav Ambassador, Fotić, called on the Under Secretary of State and expressed his unhappiness at the plan to give these men commissions in the U.S. Army. He said it was in the highest degree important from the standpoint of morale in Yugoslavia that they serve as a Yugoslav unit.

Fotić continued his representations on July 28, 1943, when he called on Assistant Secretary Berle. He followed this up with a memorandum on August 3, with yet another call on Welles on August 11, and submitted a further memorandum to the Department of State on August 14. The matter involved not only the State Department but also the OSS, to which the formation of a Yugoslav aviation unit was originally referred by the President. It involved also General Henry H. Arnold, Commanding General, Army Air Forces; General Marshall; Chief of Staff of the U.S. Army; Admiral William D. Leahy, Chief of Staff to Roosevelt, and finally the President himself. In the end, the OSS (General Donovan and Colonel Goodfellow) prevailed over General Arnold, and the forty-two airmen (twenty-four officers and eighteen noncommissioned officers) were not only activated as a Yugoslav detachment but were assigned four B-24 Liberator bombers.

On September 7, the Yugoslav Ambassador called on Roosevelt and asked him to make the presentation of the four Liberators "personally, with an appropriate ceremony, instead of sending the Yugoslav airmen in a routine way to their new assignment." Fotić reports that the President was "greatly interested." Next, the Ambassador visited Harry Hopkins at the Naval Hospital in Bethesda. He says he

found Hopkins "quite enthusiastic about my proposal. [He] stressed the importance of demonstrating American interest in Yugoslavia and in Central Europe, because of the British tendency to consider problems in that part of Europe as of interest only to Great Britain and the Soviet Union." On September 29, Roosevelt outlined to Fotić the arrangements under which the four B-24s would be flown to the North African Theater and informed him of a dedication ceremony to be held at Bolling Field on October 6 in which the President hoped to participate."

Fotić gave a speech on that occasion, in which he told the Yugoslav airmen that in addition to their regular missions with the U.S. Air Force "they would have the privilege of carrying supplies to Mihailovic and his courageous fighters." Fotić says he had felt that "in loyalty to the President," his draft should be cleared by the State Department in view of the anti-Mihailovic campaign. He adds that this was done and that he was informed that the White House had no objection to it.

The planes were flown by their Yugoslav crews to Cairo, where they were officially accepted by King Peter, who had meanwhile moved with his Government from London to Cairo.

On November 2 the King sent a cable to Roosevelt saying that the Liberators "are truly magnificent machines" and, adding: "I take this opportunity to renew my personal and my people's warmest thanks to you Mr. President and to the American nation for this generous gift."

The detachment was under the command of the United States Army Air Force. It was attached to a B-24 squadron of the 15th American Air Force flying together with the American crews. The squadron participated in air raids over Greece, Germany, Austria, Italy and Bulgaria. Three of the bombers had been shot down by January of 1944. The crew of the remaining Liberator had carried out more than fifty long-range missions by the end of the war. In August 1945, eleven of the fourteen remaining members of the detachment were either commissioned or enlisted in the Army of the United States by directive of President Harry S. Truman.

[Editor's note: These Liberators most likely carried USAAF marking, possibly with a Yugoslav insignia on the nose. It is interesting to speculate that the remaining B-24 might have gone on to serve with the Yugoslav AF after the war. Perhaps our friends in the Liberator Club can identify the serials of these four B-24. And, maybe our friends in Serbia can add to this tantalizing bit of history.]

## -books-books-books-books-books-books-books-books-books-books-books-

Just received from Argentina are two new books by our friend Jorge Nunez. In common with all of Jorge's publications, they are printed on extremely high-quality, paper best described it as "Kodak" quality; almost erotic in feel. This high-gloss provides for the highest quality reproduction of the color photos and the beautiful color profile drawings. The only drawback is the text is entirely in Spanish. If you're not familiar with Jorge's books, you owe it to yourself to get one as an example of the highest quality aviation publication.

These latest two books are both updated versions of earlier titles. There are more pages and many new photos (I estimate that less than 10% are repeats). There are also many more color profiles and the few that are repeated have been redrawn. These two books and others in the series are available directly from the publisher at [jfnpadin@yahoo.com](mailto:jfnpadin@yahoo.com), or from the SAFCH Sales Service.



**Dassault Mirage IIICJ/BJ & IIIEA/DA**, by Jorge Félix Núñez Padín. Serie Fuerza Aérea #23. 52 A-4 pages. Landscape. \$20.00 plus p&p.

This book is an updated and enlarged version of Serie Fuerza Aérea #15. There are 20 more pages, many new photos, and 12 more color profiles than in the earlier edition.

The Argentine Air Force operated 22 ex-Israeli Mirage IIICJ/BJ obtained from Peru (C-701 to C-722) and 21 Mirage IIIEA/DA/BE (I-001 to I-021).

The context: "Historia" 10 pages including 21 photos. "Operaciones en Malvinas" 4 pages including 7 photos. "Técnica" 5 pages including 9 photos.

"Historias Individuales" 10 pages including 18 photos. "Preservados" 2 pages including 16 photos.

There are 9 pages of color drawings with 16 side-views and 3 plan views (one Peruvian). In addition there are 6 pages with 23 photos.

This edition is recommended to all enthusiasts of Latin American air forces – except those having the earlier edition.



**McDonnell Douglas A-4Q & A-4E Skyhawk**, by Jorge Félix Núñez Padín. Serie Aeronaval #31. 60 A-4 pages. Landscape. \$20.00 plus p&p.

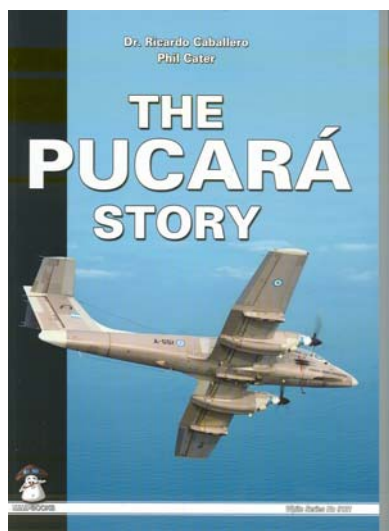
This book is an updated and enlarged version of Serie Aeronaval #24 with the

same title. There are 12 more pages, many new photos, and 8 more color profiles compared to the earlier edition.

The Aeronaval received 24 ex-USN A4D-2 in 1971 that were designated A-4Q by the Aeronaval and given serials in the range 0654-0669 and 0743-0744. Twelve ex-Israeli A-4E were acquired in 1972, but they never left Israel.

The content: "Historia" 18 pages including 30 photos. "Operaciones en Malvinas" 5 pages including 11 photos. "Técnica" 5 pages including 7 photos. "Historias Individuales" 6 pages including 15 photos. "Personal 3º Escuadrilla Aeronaval de Caza Ataque" 4 pages including 9 photos. "Preservados, Restos & Monumantos" one page including 6 photos. There are 9 pages of color drawings with 16 side-views, one top view, and one 3-view. In addition there are 6 pages devoted to 18 photos.

This edition is recommended to all enthusiasts of Latin American air forces – except those having the earlier edition.



**The Pucará Story**, by Ricardo Caballero and Phil Cater. 152 A-4 pages. Soft cover. Entirely in English. Available from [www.mmpbooks.biz](http://www.mmpbooks.biz). £19.99 plus p&p.

"The subject of this book is correctly pronounced puka'ra. Not pu-car-ruh." With this admonishment, the authors begin what is probably the definitive work on the subject.

The authors begin by describing the design and development of the Pucará beginning with the two un-powered gliders, the many prototypes, and series production. The Pucará's participation in the South Atlantic War gets special attention including the Pucará modified to carry a torpedo. For a detail description of the contents, see below.

A highlight of the book is the excellent full-page multi-view color drawings. Every possible color scheme for the gliders, prototypes, service, and test aircraft is presented. The artists must have had the modeler in mind, because port, starboard, top, and bottom views are included for every unique color scheme. Nothing is left to the imagination.

Chapter One: Origins and influences. "IA-55 COIN Aircraft Project" one page including one profile. "Planeador" 9 pages including 9 photos and 6 pages of multi-view drawings of the gliders. "First Powered Flights" 14 pages including 16 photos and 6 pages of multi-view drawings. "Series Production" 2 page including 2 profiles. "Into Service"

“Tucumán and the “Beagle Channel Crisis” 2 pages including 3 photos.

Chapter Two: Further development & initial exports. “First export sales fall through” One pages including 2 photos and one profile of a Pucará for Mauritania. “Pucará A-19” and “X05 Bravo” 6 pages including 8 photos and 5 pages on multi-view drawings. “IA-66” 5 pages including 5 pages including 5 photos and 4 profiles.

Chapter Three: South Atlantic conflict. 23 pages including 19 photos, 11 profiles. “Pucará Torpedero” 4 pages including 4 photos and 2 pages of multi-view drawings. “Tribulations and Trials of the British Purara” 4 pages including 7 photos and one profile.

Chapter Four: The Pucará in Uruguay & elsewhere. 6 pages. Uruguay (12 photos & one profile); Colombia (2 photos & one profile); Sri Lanka (3 photos & one profile).

Chapter Five: Post 1982 service and developments.”IA-58C Charlie” 5 pages including 6 photos and 3 pages of multi-view drawings. “Drug Busting Interceptor” one page including 2 photos. “A-561 – The long-serving Trials Pucará” 10 pages including 14 photos and 4 pages of multi-view drawings. “Echos and Foxtrots?” one page including one profile.

Chapter Six: Camouflage & Markings, and note for modelers. 4 pages with “Color Guide” and “Anniversary Pucarás” with 6 photos and 2 profiles.

Chapter Seven: Walk around. 11 pages with 64 photos.

Chapter Eight: Weapons and stores. 8 pages with 19 photos. “Martin Pescador” one page with 3 photos and one profile. “Sistema Halcon del Sur” 2 pages with 5 photos and one profile.

Chapter Nine: Exports that never were. 5 pages with 11 color profiles (South Africa, Central African Republic, Venezuela, Morocco, Iraq, Iran, Zaire, Egypt, Indonesia, Saudi Arabia, & Nicaragua). “Paper projects” 2 pages with two 3-view drawings and 2 photos.

Chapter Ten: Preserved and lost relics. 6 pages with 16 photos.

Chapter Eleven: Now the end is near? one page.

Appendices: “Individual Aircraft Summary” 3 pages. “Daily Operational Log – 1982” 5 pages.

This is an outstanding book that can serve as a model for any author thinking

of writing a type history. It gets my vote for the 2014 small-air-forces “Book of the Year”.



**Breguet 27, Potez 38, Mureaux 115/117**, by José Fernandez. French Wings #3. 80 A-4 pages. Soft cover. Available from [www.mmpbooks.biz](http://www.mmpbooks.biz). £12.99 p&p.

In his series, French Wings, José Fernandez has developed a unique format that is both informative and pleasant to the eye. Each type is covered with a well-researched text (in English) followed by numerous photos and beautiful color profiles (with color plan views when appropriate). The text describes the development of each type, its service by the *Armée de l’Air*, and any use by other air forces.

*French Wings #3* covers three reconnaissance aircraft all designed in the early 1930s and still in service when the Germans invaded France in 1940. Of special interest to readers of SAFO is that the use of the type by the small air forces is described in detail.

The **Breguet 27** was designed to give the observer as clear a view as possible to the rear. The shortened fuselage with a narrow beam supporting the tail fins resulted in a most usual-looking aircraft.

In French service: 16 pages, 51 photos, 8 color side-view drawings, and 2 color multi-view drawings.

In **Venezuelan** service: 2 pages, 3 photos, one color side-view drawing, and one color multi-view drawing.

In **Chinese** service: 2 pages, one photo and one color multi-view drawing.

A 1/72-scale kit of the Breguet 27 is available from Azure. Alternate parts are provided for either the Breguet 27 or the 273, and decals are provided for both a French aircraft and a Chinese aircraft. If it is desired to model a Venezuelan aircraft, it may be possible to use the Venezuelan national insignia from Antarqui’s D.500 decals

The **Potez 39** of a conventional parasol monoplane of rather portly appearance.

In French service: 18 pages, 43 photos, 5 color side-view drawings, and 6 color multi-view drawings.

In **Peruvian** service: 6 pages, 13 photos, 3 color side-view drawings, and one color multi-view drawing.

The **Mureaux 115/117** somewhat complicated series of Mureaux’s elegant parasol monoplanes is explained with main emphasis on the 113, 117, and 115.

In French service: 30 pages, 58 photos, 12 color side-view drawings, 7 color multi-view drawings, and a page with 13 Badges of French Groupes de Reconnaissance – in color. On special note is the section detailing all the 115 and 117 lost to Bf 109, flak, or accident between September 1939 and the capitulation of France in May 1940.

A 1/72-scale Mureaux 117 was available from Heller. Conversion to a 115 looks difficult, but not impossible.

**The Man Called Brown Condor:** The Forgotten History of an African-American Fighter Pilot, by Thomas E. Simmons (Skyhorse Publishing, 2013). A real bargain, at \$5.95 for a brand new \$24.95 hardcover book, from Edward R. Hamilton Bookseller Co. (in Falls Village, CT).

The pilot of the title is John C. Robinson (1903-1954) from Gulfport, Mississippi, who became “The Brown Condor of Ethiopia,” commander of the Imperial Ethiopian Air Corps during the Italian invasion of 1935.

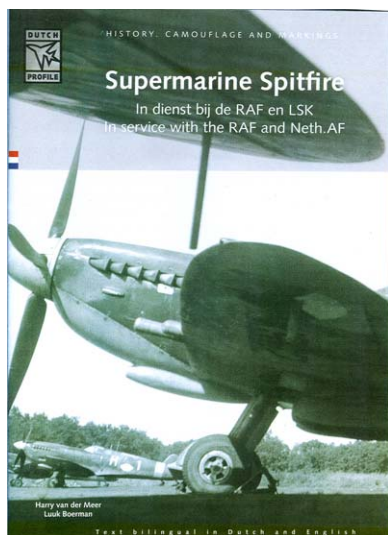
The cover of book shows a formation of Italian SM 81 bombers (also depicted, along with RO 37s, in the photo section inside). For us, though, of greater interest are some fragmentary views of Ethiopian aircraft visible behind the many portrait shots, some with markings (or portions thereof) showing. There ia a Junkers W33c, a Potez 25, another aircraft not identified in the caption, plus a beautiful shot of the nose of the Emperor’s own



Beechcraft B17R Staggerwing. (A much later shot shows Robinson in front of the dazzling logo of Ethiopian Airlines, which he helped found, on a DC-3. There also is a color illustration of the older Ethiopian roundel, plus one of the Imperial flag.)

I was most intrigued by the unique pictures from the period (1944 or on?) when Robinson and his team of African-American pilots were invited back to rebuild and train the Imperial Ethiopian Air Force. The photos depict a Cessna UC78 Bobcat ("Bamboo Bomber"), with views of the nose with engines being worked on, the left side mid-fuselage (partly obscured), and the right side rear, with revised roundel and tail markings. Delightful! Would make a good subject, eh? Would be nice if complete aircraft were shown, but still...

Unfortunately, book doesn't have an index, so I couldn't check further details. Of course, I haven't read it yet (as I'm reading three other books currently), but I'm really looking forward to it. Ted Koppel (SAFCH #118), USA.



**Supermarine Spitfire:** in service with the RAF and Neth. AF, by Harry Van der Meer & Luuk Boennan. Dutch Profile. 295 mm x 210 mm (8.5 in. x 11 in.), 54 pages. Text and captions in English & Dutch. UK Price £15-99. Obtainable from [www.dutchprofile.nl](http://www.dutchprofile.nl) or [info@dutchprofile.nl](mailto:info@dutchprofile.nl).

Dutch Profile continue to produce some very interesting publications on aircraft in use by the various Dutch Air Arms. The Spitfire marks concerned here are mainly Mark 9's but some Mark 14's

are also included. Not all the aircraft concerned flew with Dutch squadrons and in some cases what appear to be presentation aircraft are 'doctored' photos as pointed out in the captions. One interesting item is a Dutch presentation aircraft flying with a Free Polish Squadron from the UK truly an example of Allied cooperation.

After covering wartime service, the authors go on to cover the reconstitution of the RNeth. AF on Spitfire 9's and there are ample shots showing some of the variations in camouflage and markings of the early post war period, along with the layout of the national markings and lettering. There no scales given.

However, I'm sure that for many of us, the main interest will lie in the markings and colours carried during the latter days of the RNeth. EIAF, particularly the 'Jungle Green' and 'Light Blue' over painting and the fact that the 'Jungle Green' was a gloss finish - I must repaint my model There were various other schemes all of which are depicted.

The authors have even covered the COGEA & Schreiner Target Tugs and various imaginative repainting of training school aircraft!

All in all, a most useful addition to the seemingly never-ending World Spitfire Archive. Malcolm Barratt (SAFCH #1716), UK.



**Messerschmitt Bf 108 Taifun**, by Jan Forsgren. Published by MMP Books Yellow Series 6132. 160 Pages 9 inches by 6.5 inches. Price UK £13.99

This would normally have not come within the remit of SAFCH being a

product intended for the use by one of the larger air forces, however on examining the contents there are extenuating circumstances! Aside from being used in various support roles by the Luftwaffe the Bf 108 had other lives to consider - as a pre war racing and record breaking aircraft and as a civilian and military aircraft from Austria to Yugoslavia. There is even one with US NAVY writ large on it's sides.

Post war the aircraft continued in production at the Nord works in France and went on to serve in the Aeronavale and Armee d l'Air as the Nord 1002 series; indeed most of the survivors are French built.

As is ever the case with an MMP publication, there are copious close up photos, diagrams from the aircraft manual, and detailed drawings in 1/72 & 1/48 scale, plus plenty of colour artwork and some colour photos.

Anyone wanting to model the Bf 109 is recommended to get a copy of this book!!

Malcolm Barratt (SAFCH #1716), UK.

[Editor's note: The author of the Dutch Profile on the Douglas DB-8A Profile (reviewed in SAFO #145) sent the following note.]

To my regret, the publisher had omitted a small part of my text in the DB-8A Profile. This omitted text follows.

The fact that a foreign aircraft had been chosen for the ML was painful to the Dutch aviation industry. It was claimed that the DB-8A had been a failure and it was a bad buy.

In July 1940, an article in the journal *Militaire Spectator* in which John S. Zodij proclaimed the Douglas a complete failure. J.A. Bach reacted at once in the August issue, pointing out that the Douglas was an excellent aircraft that was used in the wrong way - as a fighter. He pointed out that Lt.kol. Sar had proposed to replace all the old recce aircraft in 2 LvR by the Douglas. According to Bach agitation against the Douglas has been fed by the Dutch aviation industry. (Long after the war, retired Ir. M. Beeling, who had been chief designer with Fokker, wrote that he wouldn't say anything about the DB-8A. Apparently that purchase still hurt.) J.H. van Giessen reacted in the September issue of *Militaire Spectator*. He wrote

The following are notes from two former members of 2-V-2 LvR:

(2) Ing. M.G. van der Steeg (who had helped Lt. Bierema with take-off on 10 May 1940) had a very different adventure later in the war. He had been

arrested by the German security police and they found in his wallet photos of IJs. Bierema and Scheepens with their D.XVII's. (Lt. G.J.E. Scheepens had been a reserve pilot for DH.90 '962'.) That needed explanation. Van der Steeg sprang to attention and said: "Meine Offiziere, Mai vierzig gefallen" (My officers, fallen in May 1940). At once all Germans stood to attention. Van der Steeg was reprimanded and released." Luuk Boerman, Netherlands.

[illegible]

F-toys of Japan has released a series of 1/144-scale kits of Maritime Patrol Aircraft. There are three aircraft types with three different color schemes each – nine kits in all. These kits are all of the same high quality and a review of one along with copies of the instruction sheets of them all should be sufficient to describe these kits.



The review kit is for the third option – an aircraft of VAW-123 on the USS Enterprise. The kit is very nicely molded with finely engraved panel line. The fuselage is in one piece as are the wings and engine nacelles. The clear windows

The instruction sheet for each aircraft type has full color drawings for each of the three options as seen on the drawings included with this review.

# 02S-2

## トロッカー

### 日デカールの貼り方 1

デカールを貼るにあたっては必ずデカールをしっかりと乾燥させておいてから貼ります。  
 貼るときは必ずデカールの裏面に「貼る面」の文字が印刷されているので、その面を貼ります。  
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 デカールを貼るときは必ずデカールの裏面に「貼る面」の文字が印刷されているので、その面を貼ります。

#### A 海上自衛隊 第1航空群 第1航空隊

右主翼下側 左主翼下側

その他のデカール使用例

番号	機体	機体	機体
31	41.3.1	41.3.1	41.3.1
24	41.3.2	41.3.2	41.3.2
54	41.3.4	41.3.4	41.3.4

機体番号の表示方法

#### B アメリカ海軍 第20対空哨戒飛行隊

右主翼上側 下側

機体番号の表示方法

右主翼下側 左主翼下側

NAVY

機体番号の表示方法

#### C アメリカ海軍 厚木基地

右主翼下側 左主翼下側

NAVY

機体番号の表示方法

機体番号の表示方法

[illegible]

The three kits received for review (E-2C #3, S-2 #2, and S-3 #1) are available from the SAFCH Sales Service for \$8.00 each. Let me know (safch@redshift.com) if you want any of the other kits, and I'll see if our friend in Japan can get more.

"I have just received the latest issue of SAFO (vol.37 n°4): just a little remark. On page 137, the book: *Las Operaciones del Cuerpo Aeronáutico del Perú durante el Conflicto de 1941* is entirely written in the Spanish language and not French! (alas...)"  
Christian Hotte (SAFCH #902) France.

"The Chile Junkers article in #148 is quite interesting, - especially all the photos. It would have been nicer if there had been a section, or even a paragraph, giving some info on the colors (markings/insignia, etc.).. Seems as though that should be an important factor in SAFO, more so with historical articles.

"I'd been unfamiliar with the 1941 Peru-Ecuador war, so Dan Hagedorn's piece was quite informative. He always seems to come up with a plethora of details.

"By the way, regarding the related review of *Las Operaciones*..... I'm a bit puzzled as to why the title is in Spanish (though obviously appropriate to its subject) when you said it's in the French-language. Is there also a Spanish-language edition (with its title in French?), and did the printer just mix up the two covers? Who knows, maybe there exists an English-language edition, with its title in German?"

Ted Koppel (SAFCH #118) USA.

[Editor: I deserved that. In penance, I'll wear sackcloth and ashes for a month.]

"I would like to make a few additions and comments to Santiago Rivas excellent article on Junkers aircraft in Chile in SAFO #148. Firstly, the Junkers expedition to South America was called, if I remember correctly, Expedition Südamerika (ESA), and it actually started as the Junkers-Expedition Westindien-Südamerika.

"The three-engine bombers were actually designated Junkers K 30, but Flygindustri called them R 42s for a short period in 1926, exactly when Chile acquired them. So the K 30 and R 42 was the same aircraft - a military variant of the civil G 24. The Chilean R 42s had Junkers L 5 engines, not the BMW. They can not have arrived in February because they left Sweden on board the *Ilmar* on 20 April 1926. I do not understand the significance of the "Enlisted" dates in the table on page 127. The aircraft must have

arrived in May/June 1926 and were then assembled and test flown, probably by Walter Friedensburg, who was a Junkers company pilot. As can be seen on two of the photos, the R 42s were later fitted with locally made glass canopies over the cockpit. One last thing: The Chilean Navy's aircraft was a W 34 b, not W34B."

Lennart Andersson (SAFCH #68), Sweden.

"I congratulate you on putting SAFO out in an ever-improving style. The information gets more and more high-quality. It really makes one appreciate how much we did not know years ago, and also that at that time people did not think so deeply or did not have access to a lot of official archives. (I know that a lot of early ones from British firms at least were thrown out early in WW II in the "give us your old waste-paper" drives. Ugh!

"Here's a point you mayor may not want to refer to in a coming issue - embarrassing in a way. On page 142 of #148 you refer to photos I took in the Mongolian Military Museum in 1997. But these were models – not actual a/c! I think the workmen were quite conscientious on making them, but I do not know their sources. I will try to get better photos on another visit."

Denys Voaden (SAFCH #914), USA.

"These comments and information might not be of great interest to all SAFO readers, but you might want to file them for reference.

"With the multi-national contributors who deal with people and places, not necessarily of their own countries, there arises the question of transcribing non-Latin alphabets into the accepted system in use in English-speaking areas, especially for scholars. In the US there is a Library of Congress method for Russian and the International Board on Geographical Names has one, almost the same. What I use is as good as you'll get!

"It seems that our friend Alfredo Logoluso has taken Italian or especially Spanish sources, but names there are not as they would be in UK or USA, so I offer some according to 'our' system, and they are more likely to appear thus in other English-language dissertations.

"So we have Bergol'ts, Avgust

Ivanovich (in Russian form, but as he was Latvian he may well have been born as Bergholz - a Baltic German name).

"And now we have Yerlykhin, Yevgenii Yefimovich, apparently a native of Leningrad (Sanktpeterburg).

"Yakov Vladimirovich Smushkevich is referred to as 'Andre Douglas' (#147 p. 80), but I have never seen the 'Andre' as far as I recall. His code-name was 'General Duglas' which the Spaniards will have rendered as 'Douglas' and I imagine the 'General' was to add prestige. At that time his rank was kombrig – note that the 'general'. Named ranks were introduced only on May 7 1940 in the USSR.

"In #147 p. 77 we [should] have Prokof'ev, Gavriil Mikhailovich who was in Spain from 10/1936 to 5/1937. In 1968 he was retired general-mañor aviatsii.

"Some other notes

"Bergol'ts: \*1897. Komdiv instructor at the air academy when arrested 1937.12.13.as member of a 'Latvian fascist organization'. Sentenced and executed 1938.07.28.

"Yerlykhin: \*1909. In Spain 10/36 to 3/37, I-15 pilot, cover name 'Pedro', Retired 1956. Died 1969. 04.18

"Stop Press! Wikipedia says that Ya. V. Smushkevich was a Russian Jew born at Rokiškis in NE Lithuania 1902.04.14. Arrested 1941.08.06 and shot without trial 1941.10.28.

"So - I run these thoughts by you - use as you think fit., and I can fill things out a bit more if needed."

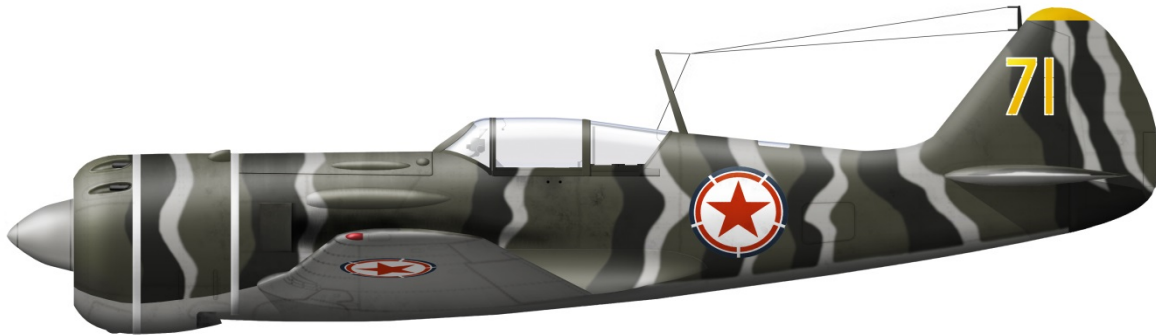
Denys Voaden (SAFCH #914), USA.

The January/February 2014 issue of the French magazine *Avions* has a pair of photos of a replica of the Norwegian Bleriot XI-2 that made the first aerial crossing of the North Sea from England to Norway in 1914. The modeler will be interested because this aircraft carries Norwegian insignia similar to the Slovak insignia ca. 1939 - except the color are reversed. This will allow the modeler an opportunity to pull the un-built Frog/Novo Bleriot out of the "loft" and use the erroneous Slovak insignia that were included in the Insignia's decal sheet BR2206. The proportions are a bit off, but how often do you have a change to make a "silk purse out of a pig's ear".  
The editor



# Aircraft of the Korean People's Air Force

## 56<sup>th</sup> Guards FAR, Anshan, PRC, Autumn 1952 Lavochkin La-11 "Yellow 71"



Following its third "tour of duty", the 56<sup>th</sup> Guards FAR was withdrawn from Sinuiju airfield, DPRK, at the end of January 1951 and six months later received up to 16 Lavochkin La-11 long-range fighters from the V-VS 351<sup>st</sup> OIAP. The unit trained in night fighter, bomber escort and air superiority roles, actively in engaging in night interceptor missions. According to two Russian aviation historians, "Several La-11s were painted with dark green bands wrapped all the way around the aircraft's surfaces and had bands of light grey in between them." SOURCE: "On Guard for Peace and Labor: A short observation on the DPRK Air Forces from 1948 to 1996" by Vladislav Morozov and Sergey Uskov, published in *Mir Aviatsii*, No. 2-97, page 39. Color Profiles courtesy of Tom Cooper.

## 2<sup>nd</sup> Fighter Aviation Regiment, Anshan, PRC, Late 1952 Mikoyan-Gurevich MiG-15bis "Red 408"



After almost 12 months of combat operations, mostly from Langtou airfield near Andong, PRC, the 1<sup>st</sup> Fighter Aviation Division was withdrawn to Changchun to re-equip with the improved MiG-15bis jet fighter, passing its old and well-worn early model MiGs to the new 3<sup>rd</sup> FAD in training at Yanji PRC. According to Snr Lt No Kum-Sok (whose "Red 408" is illustrated here), by this time, except for the "bort number" on the nose, all markings were removed from Soviet, Chinese and North Korean MiG-15s so that USAF fighter pilots, especially those flying the F-86 Sabre, could not tell which nationality they were fighting. According to Morozov and Uskov the new MiG-15bis were delivered to the KPAF "with a semi-matte 'silver' lacquer paint coating." SOURCES: *Ibid* and *A MiG-15 to Freedom* by No Kum-Sok, MacFarland & Company, Inc., Publishers, 1996, pages 106, 107, 133, 134.





A Breguet XIV of the Army of Central Lithuania in combat with a Lithuanian Albatros.  
(See the article beginning on page 5.)